Different Aspects of Illegal Substance Use in Catalonia: Suicide, Violence and Evaluation of a Preventive Action

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"Nothing in life is to be feared, it is only to be understood.

Now is the time to understand more, so that we may fear less"

Marie Curie

(1867-1934)

To my dear parents and to Ivan

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Esta tesis es el resultado de unos magníficos años de aprendizaje, los cuales me han enriquecido profesional y personalmente. Ha sido una etapa de trabajo duro y gratificante por todas las personas que me han acompañado. Debo agradecer de manera especial y sincera a Antònia Domingo-Salvany por aceptarme para realizar esta tesis doctoral bajo su dirección. Su apoyo y confianza en mi trabajo y su gran capacidad para enseñar y guiar mi aprendizaje ha sido un aporte invaluable, no solamente en el desarrollo de esta tesis, sino también en mi formación como investigadora. Muchas gracias.

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Abstract

In Catalonia certain gaps of knowledge about health consequences related to contextual factors of illegal drug use have been identified and there is the need to assess health prevention activities implemented in the last decade. The present study aims to assess suicidal behaviors and violence among subjects using illegal substances, and to evaluate the coverage of overdose prevention programs implemented recently.

Suicide risk behavior and violence were highly prevalent. Drug-scene contextual factors, including illegal/marginal income generation activities, were associated with suicidal ideation and plans (drug traffic in men and sentenced to prison in women) and violence (prison history in men and drug traffic in women). Having experienced traumatic experiences was associated with suicidal ideation and plans for both genders. Early illegal drug use was associated with victimization and offending for both genders. Overdose prevention programs coverage was considered high.

Such health related problems ought to be detected in drug treatment facilities, promoting development of prevention and treatment programs.

Resum

A Catalunya s'han identificat certs buits de coneixement respecte als factors contextuals de consum de drogues il·legals, i les seves conseqüències en la salut, i s'ha vist la necessitat d'avaluar activitats de prevenció implementades en l'última dècada. El present estudi té com a objectiu avaluar els comportaments suïcides i la violència entre les persones que consumeixen substàncies il·legals, i avaluar la cobertura dels programes de prevenció de sobredosi posats en marxa recentment.

El risc del comportament suïcida i la violència eren altament prevalents. Els factors contextuals de les drogues, incloent les activitats de generació d'ingressos il·legals i/o marginals, es van associar amb idees i plans suïcides (el tràfic de drogues en els homes i estar condemnat a la presó en les dones) i amb la violència (estar condemnat a la presó en els homes i el tràfic de drogues a les dones). Haver patit experiències traumàtiques es va associar amb la ideació i els plans suïcides per a tots dos gèneres. El consum de drogues il·legals precoç es va associar amb la victimització i la perpetració per a tots dos generes. La cobertura dels programes de prevenció es va considerar alta.

Aquest tipus de problemes de salut han de ser detectats en els centres de tractament de drogues, promocionant el desenvolupament de programes de prevenció i de tractament.

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1. INTRODUCTION

CHAPTER A. Epidemiology of Illegal Drugs Use, and its Health related Consequences

Brief summary of the chapter

This first chapter gives a global and country level perspective of the epidemiology of illegal drug use, particularly about opiates, heroin and cannabis. Furthermore, it explains the impact on quality of life of users and the health-related problems generated by illegal drug use, specifically mental disorders and suicidal behaviors.

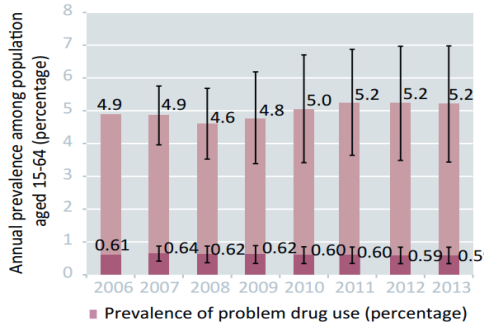
A.1. Worldwide Prevalence of Illegal Drugs

Drug abuse and addiction have been a health and social problem in the world for decades. People seek different substances for experimentation or recreational purposes. Drug use affects all strata of society, causing strain on the healthcare system, the criminal justice system, and the economy. The magnitude of the world drug problem is very serious, and it has become a prime concern for governments around the world (The UN General Assembly held a special session on the World Drug Problem in 2016)[1]. The health consequences of illegal drug use continue to be a matter of concern in most countries, as the vast majority of problem drug users continue to face barriers affecting access to treatment. According to the most recent data available, there has been little change in the overall global situation regarding the production, use and health consequences of illicit drugs (UNODC 2015).

[1] The UN General Assembly will hold a Special Session (UNGASS) on drugs in 2016. This Special Session will be an important milestone in achieving the goals set in the policy document of 2009 "Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem", which defined action to be taken by Member States as well as goals to be achieved by 2019.

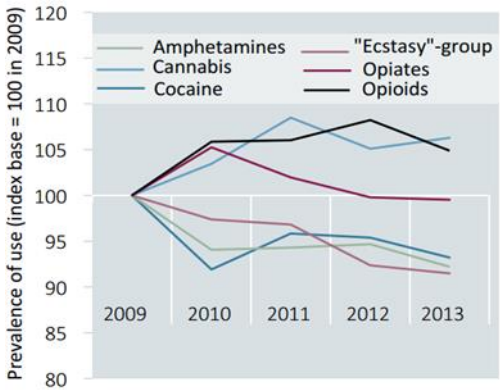
Globally, the consumption of psychoactive substances has spread among the general population. It has been estimated that a total of 246 million people (5.2% [range: 3.4-7.05%]) used illegal drugs, being 1 out of 20 people of the world's population aged 15-64, in 2013 (Figure A.1:1). Around 27 million of them (range: 15.7-39 million) were considered problematic illicit drug users (0.6%) and 12.19 million were drug injectors (UNODC 2015).

Figure A.1:1. Global trends in the estimated prevalence of drug use, 2006-2013 (UNODC 2015)



According to the World Drug Report 2015 of the United Nations Office on Drugs and Crime (UNODC), global trends of illegal drug use have remained stable during the period 2006-2013 (UNODC 2015). Related to type of illegal drugs (Figure A.1:2), *opiate use* has remained stable at the global level; however nowadays the increase in global opium poppy cultivation and opium production to record levels has yet to have major repercussions on the global market for opiates. *Cocaine use* has declined overall, mainly in the Americas and Europe, and cannabis use and the non-medical use of pharmaceutical opioids have continued to rise. Several studies indicate that more people are suffering from cannabis use disorders, and that

Figure A.1:2. Global trends in the prevalence of use of various drugs, 2009-2013 (UNODC 2015)



cannabis may be becoming more harmful, as reflected in the high proportion of persons seeking first-time treatment in several regions of the world (UNODC 2015).

Opiates

The use of opiates remains the most problematic form of drug use globally. The global prevalence of opiate use is 0.4% (16.5 million users worldwide) (UNODC 2015). Among illegal drugs, opiates are the largest direct contributors to burden disease, through HIV, AIDS and overdose deaths. Also, the use of opiates accounts for the majority of treatment admissions for drug use. The Global Burden of Diseases, Injuries, and Risk Factors Study 2010 estimated that annually 43,000 deaths were attributed to opioid dependence, suggesting that life expectancy was typically reduced by 46 years in each of those cases of death, (Lozano et al. 2012). The opioid disability-adjusted life year (DALY) estimates were around eight times those for cocaine dependence, and 4.5 times those for cannabis dependence (Degenhardt et al. 2013).

Cocaine

Cocaine is used by an estimated 17 million people worldwide, about 0.4% of the global population aged 15 to 64 years. Compared to previous years, the range shifted to lower levels, suggesting a decrease in the global number of cocaine users. Its use is most prevalent in Western and Central Europe (3.2 million people, 1.0%), in North America (5.3 million people, 1.7% of population older than 14 years) and Central and South America (3.5 million people, 1.2%) (UNODC 2015). Cocaine has been a popular recreational drug for decades, and while demand appears to be on the wane in its largest markets, it has gained popularity in an ever widening range of countries. Cocaine use is strongly associated with use of other legal and illegal

substances and with psychiatric disorders. Cigarette smokers and heavy alcohol drinkers are 10 and 20 times more likely, respectively, than non-users to also use cocaine (SAMHSA 2014).

Cannabis

Cannabis is by far the most widely cultivated, abused and trafficked illegal drug. In the present decade, cannabis abuse has grown more rapidly than cocaine and opiate abuse. Although globally cannabis use seems to decline, a perception of lower health risks has led to an increase of consumption (UNODC 2015). About 147 million people, 2.5% of the world population consume cannabis (annual prevalence) compared with 0.2% consuming cocaine and 0.2% consuming opiates (WHO 2014). The global burden of disease attributed to cannabis dependence is higher than that for cocaine. Although cocaine use is associated with greater harm, the far higher number of cannabis-dependent users results in a greater global burden of disease overall (Degenhardt et al. 2014). The number of people requiring treatment for cannabis use is increasing in most regions and it has become more closely linked to youth culture and the age of initiation is usually lower than for other drugs (Budney et al. 2007).

A.2. Prevalence of Opiates, Cocaine and Cannabis in Spain (Catalonia)

In the 80's and early 90's heroin was by far the most used illegal drug beyond cannabis, while between 1997-2013, cannabis and cocaine were the most used (PNSD 2015). Spain is one of the top European countries in terms of prevalence of both cannabis and cocaine use among the general population (aged 15-64) and among young adults (aged 15-34) (EMCDDA 2010). In 2013, the highest lifetime prevalence among people aged 15-64 years was cannabis use (30.4%), followed by cocaine (10.2%), ecstasy (4.3%), amphetamines (3.8%), and heroin (0.7%) (PNSD 2015a). Some

studies have reported that the use of illicit drugs in Spain has declined slightly since 2011, and that of legal drugs like alcohol, tobacco and tranquillizers has increased. Data from the Spanish National Household Survey on Drug Use (EDADES 1995-2013) found that the last year prevalence of cannabis use was 9.2% (9.6% in 2011; 10.6% in 2009), and last month prevalence was 6.6 % (7.0% in 2011; 7.6% in 2009). Regarding cocaine, prevalence of last year use declined from 2.7% in 2009 to 2.2% in 2013, while that of experimentation was 1.3% in 2009 and 1.0% in 2013 (PNSD 2015a).

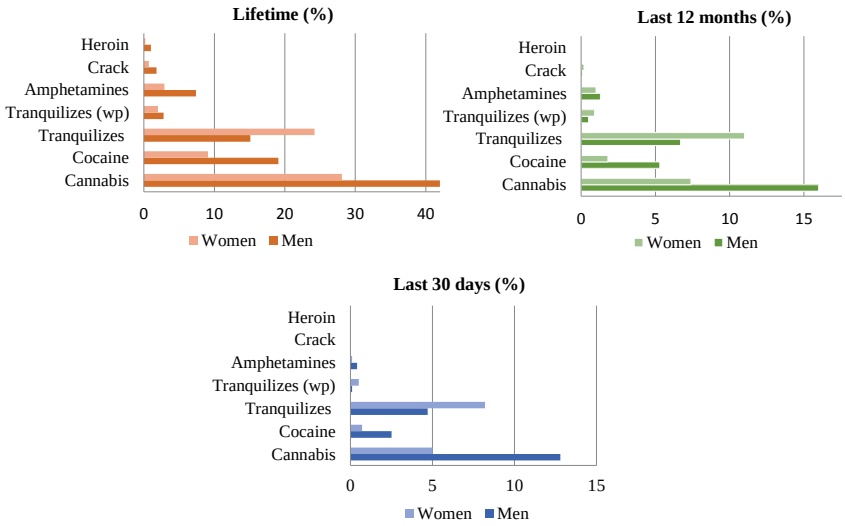
Use of illegal drugs started later than alcohol and tobacco. The average age of onset of cannabis use was 18.6 years, followed by the early 20's for cocaine (21.4), heroin (21.5), synthetic drugs (around 21.5), and after age 30 for tranquillizers both with (34.5) and without prescription (31.3). Prevalence of illegal substance use is higher in younger age groups (15-29 years old) than those aged 30 to 64, except for tranquilizers and sedatives (PNSD 2015a).

Table A.2:1. Prevalence of illegal substance use in the population aged 15-64 years in Catalonia (2013) (PNSD 2015b)

Lifetime prevalence (%)		**Last 12 months (%)**		**Last 30 days (%)**	
Cannabis	35.1	Cannabis	11.7	Cannabis	8.9
Tranquilizers	19.6	Tranquilizers	8.9	Tranquilizers	6.4
Cocaine	14.2	Cocaine	3.5	Cocaine	1.6
Synthetics	6.2	Amphetamines	1.2	Amphetamines	0.2
Hallucinogens	6.0	Synthetics	0.7	Synthetics	0.1
Amphetamines	5.2	Hallucinogens	0.5	Hallucinogens	0.1
Tranquilizers[¥]	2.4	Tranquilizers[¥]	0.7	Tranquilizers[¥]	0.3
Crack	1.3	Crack	0.2	Crack	0.0
Inhalants	0.7	Inhalants	0.0	Inhalants	0.0
Heroin	0.6	Heroin	0.0	Heroin	0.0

Columns ordered by descending prevalence of illegal drug use
[¥]Without medical prescription

Figure A.2:1. Prevalence of illegal substance use in the population of 15-64 years in Catalonia (2013) by gender (PNSD 2015b).



Among the different regions of Spain, historically Catalonia has reported higher prevalence of illegal drug use. The lifetime prevalence for cannabis was 35.1% and cocaine (14.2%), followed at a distance by synthetic drugs (6.2%), hallucinogens (6%), amphetamines (5.4%), etc. See prevalences also in the last 12 months and last 30 days in **Error! Reference source not found.** (PNSD 2015b).

Men in Spain are more likely than women to use illegal drugs: prevalences are higher in men, except for use of tranquilizers. In Catalonia as well as, in the other regions of Spain, men's consumption almost doubles that of women for cocaine and synthetic drugs (PNSD 2015b).

A.3. Health related Problems

Accidents, illness, crime, violence, lost opportunity, and reduced productivity are the main direct consequences of substance abuse (Parker and Auerhahn 1998; Braitstein et al. 2003; Atkinson et al. 2009; Gálvez-Buccollini et al. 2009). Illegal drugs such as heroin, cocaine, cannabis and

synthetic drugs inflict serious damage to drug users and communities every year. The greatest cost of drug abuse is paid in human lives, either lost directly to overdose, suicides, or through drug abuse-related diseases such as blood born infections like hepatitis and immunodeficiency syndrome (AIDS), sexually transmitted diseases, etc. (Darke et al. 1996; Warner-Smith et al. 2002; Loebstein et al. 2008; Martin et al. 2008). Also, traffic accidents caused by drug-impaired drivers (Carmen Del Río et al. 2000), or the violence and street crime committed by addicts to support their addiction (Inciardi 1979; Fagan 1994; Mclaughlin et al. 2000; Braitstein et al. 2003; Martin et al. 2008).

So, illegal drug use is an important contributor to the global burden of disease. Drug dependence directly accounted for 20 million DALYs [95% UI 15.3-25.4 million] worldwide in 2010, accounting for 0.8% (0.6-1.0%) of global all-cause DALYs. Among illegal drugs, opioid dependence is considered the largest direct contributor to the burden of DALYs (9.2 million, 95% CI7.1-11.4 million) (Degenhardt et al. 2013). The use of and dependence on illegal drugs occupies the 19th position in the ranking of the leading risk factors overall of DALYs, with tobacco being the 2nd and alcohol the 5th (Lim et al. 2012). Cannabis use is considered a factor contributing to develop schizophrenia (Pushpa-Rajah et al. 2015), injecting drug use is a clear risk factor for blood born infections (Strathdee et al. 2010), and dependence on opiates, cocaine or amphetamine is strongly associated with suicide (Table A.3:1) (Wilcox et al. 2004).

Table A.3:1. Estimated DALYs attributable to illicit drug use as a risk factor for other health outcomes, 2010 (Degenhardt et al. 2013)

Risk factor	Consequence	Overall DALYs	Range
Cannabis use	Schizophrenia	7,000	(3,000–13,000)
Injecting drug use	Hepatitis C	502,000	(286,000–891,000)
	Hepatitis B	63,000	(29,000–122,000)
	HIV	2,117,000	(1,176,000–3,590,000)
Opiates	Suicide	671,000	(329,000–1,173,000)
Cocaine		324,000	(109,000–682,000)
Amphetamine		854,000	(291,000–1,791,000)

An unacceptable number of drug users die prematurely. The annual number of drug-related deaths (estimated at 187,100 in 2013) has remained relatively unchanged (UNODC 2015). Fatal overdose and infection with human immunodeficiency virus (HIV) and other blood-borne viruses transmitted through shared needles and syringes are the most common cause of death among opiates users, particularly injectors (Vlahov et al. 2004; Darke et al. 2006; Degenhardt et al. 2011; Evans et al. 2012). The overall crude mortality rates of this specific group of drug users was 2.35 deaths per 100 person-years (WHO 2013). Worldwide, an estimated 69,000 people die from fatal opioid overdose each year (Degenhardt and Hall 2012), and the number of opioid overdoses has increased in recent years (WHO 2014). Also, combining drugs increases the risk of death, especially with opiates, alcohol and sedatives are often present in fatal drug overdoses (Coffin et al. 2003). Spain was experiencing a downward trend of deaths for overdose until 2010, but by 2012 the number of overdoses had increased by about 44%. There were 626 fatal overdoses in 2012, 501 in 2011, and 434 in 2010 (PNSD 2015).

Prevention, treatment and care of drug use disorders and health related consequences represent a heavy burden on public health systems in most countries. There is no quick and simple remedy for drug dependence. It is a chronic health condition and like other chronic conditions, the affected persons remain vulnerable for their lifetime and require long-term and

continued treatment. A meta-analysis suggested that mortality was 2.52 times higher during off-treatment periods than during in-treatment periods (Mathers et al. 2013). Unfortunately only 1 out of every 6 problem drug users in the world has access to treatment, as many countries have a large shortfall in the provision of services. According to the World Drug Problem Report 2015, the number of people requiring treatment for cannabis use is increasing in most countries. Also, the demand for treatment has also increased for amphetamine-type stimulants (ATS), including methamphetamine and MDMA or 'Ecstasy' and for new psychoactive substances (UNODC 2015).

A.3.1. Illegal Drug Use on Health-related Quality of Life

As mentioned before, substance use disorders are increasingly viewed as chronic conditions. Health-Related Quality of life (HRQoL) has become increasingly recognized as an important outcome in health care as an indicator of treatment effectiveness (Torrens et al. 1999; Puigdollers et al. 2003). It is a very complex concept that involves many aspects, such as attitudes, behavioral habits, relationships, understanding of life, and self-expression. In the area of substance abuse, HRQoL assessment has been used to evaluate functioning, well-being and life satisfaction (Torrens et al. 1999; Zullig et al. 2001; Giacomuzzi et al. 2003; Morales-Manrique et al. 2006). For example, a deterioration in HRQoL was observed in cocaine users, especially those injecting drugs, using more than one drug, and those with severe addiction (Lozano et al. 2008). Also, severe addiction was found to be a factor strongly associated with HRQoL in young heroin users; interestingly in this sample, women reported worse HRQoL than men; men having had an opiate overdose or contacted with a psychiatrist reported poorer HRQoL (Domingo-Salvany et al. 2010).

Millson et al, reported that opiate users perceived both their mental and physical health as worse than the general population and individuals with minor and serious medical problems, but comparable to those with diagnosed psychiatric illnesses (Millson et al. 2004). Fassino et al., found a more impaired quality of life in opioid-dependent patients with personality disorders than in those without personality disorders or nonclinical controls (Fassino et al. 2004). In the absence of treatment, quality of life decreases as substance use progresses, but appropriate treatment has proved to improve QoL of substance users (Torrens et al. 1999). A large proportion of people with substance use disorders have a comorbid psychiatric disorder and in a street-recruited sample of cocaine and/or heroin users QoL was found impaired particularly among those with psychiatric comorbidity (Chahua et al. 2015).

A.3.2. Drug Use related Mental Disorders

A considerable volume of literature has documented strong associations of substance use disorders (SUD) with other mental disorders (OMD) (Merikangas et al. 1998; Regier et al. 1990; Grant and Harford 1995; Swendsen and Merikangas, 2000;Stinson et al. 2005, 2006; Conway et al. 2006). In fact, SUD and OMD are frequently concomitant. Drug abuse may bring about symptoms of another mental illness due to changes in the brain in fundamental ways or OMDs can lead to drug abuse, possibly as a means of "self-regulation or self-medication". Both disorders can also be caused by shared risk factors: Overlapping genetic vulnerabilities, involvement of similar brain regions, previous developmental disorders in childhood and environmental triggers (stress, trauma, violence etc.) (NIDA 2011). It is clear that this co-occurrence is reasonably common and the relationship is complex.

Since the 1980s, the prevalence of co-morbidity has been extensively documented in general population samples (Regier et al. 1990; Kessler et al. 1994; Merikangas et al. 1998; Grant et al. 2004; Compton et al. 2007) and clinical samples (Kokkevi et al. 1998; Compton et al. 2000; Verheul 2001; Bakken et al. 2003; Brady and Sinha, 2005; Sullivan et al. 2005; Schuckit 2006; Niciu et al. 2009; Marshall et al. 2013). In general population samples, psychiatric patients have mainly SUD involving alcohol, cannabis or sedatives, while clients from drug treatment centers mostly have SUD involving heroin, amphetamine or cocaine and exhibiting a high comorbidity with depression and anxiety, and to a lesser degree, with psychotic disorders (EMCDDA 2004). A study in the general population reported a lifetime prevalence of cocaine users having depressive/anxiety syndromes of 37.5%, while for marijuana users it was 26.1%, and among users of any illicit drug, 28.5% (Kandel et al. 2001). In contrast in a clinical sample, Niciu et al. that overall 63.1% of drug users had lifetime major depression, varying as a function of the substance: alcohol (77.3%), cocaine (75.6%), opioids (51.7%), and cannabis (38.6 %) (Niciu et al. 2009). In another sample of illicit drug users 24% had major depression, 12% dysthymia, and 10% generalized anxiety disorder (Compton et al. 2000). Among opioid users admitted to methadone maintenance 47% of them had psychiatric comorbidity: Antisocial personality disorder (25.1%) and major depression (15.8%) were the most common diagnoses (Brooner et al. 1997). In another sample of heroin injectors, 60% met the criteria for a lifetime anxiety disorder and 51% had current anxiety; for depression, 41% were diagnosed as lifetime, and 30% were current (Darke and Ross 1997). Among cocaine users, one study found high prevalences of comorbid psychopathologies (60%): mood (38%), anxiety (22%), psychosis (20%), and personality (35%) disorders (Pedraz et al. 2005).

The relevance of the comorbidity of mental disorders in substance users is related to its high prevalence, its clinical and social severity, its difficult management and its association with poor outcomes for the subjects affected. Those individuals who have both a substance use disorder and another comorbid mental disorder present more emergency admissions, significantly increased rates of psychiatric hospitalizations and a higher prevalence of suicide than those without comorbid mental disorders (Torrens et al. 2015). Suicide is not a mental illness in itself, but it contributes to the excess mortality of the mentally ill (Harris and Barraclough 1997; Borges et al. 2000; Lönnqvist 2008). Almost all psychiatric disorders, including alcohol and substance use disorders, are associated with an increased risk of suicide (Kessler et al. 1999; Mann et al. 1999; Hawton et al. 2003; Nock and Kessler 2006; Nock et al. 2008). In fact, over 90% of people who die by suicide have a psychiatric disorder at the time of their death (Bauer et al. 1991; Conwell et al. 1996; Harris and Barraclough 1997; Bertolote and Fleischmann 2002; Cavanagh et al. 2003). Specifically, suicidal behaviors are strongly associated with illicit drug use. Furthermore, contextual factors related to illegal circumstances of illicit drug users, also strongly contribute to trigger suicidal behaviors in this population due to respective negative contextual experiences (Figure A.3:1).

Figure A.3:1. Outline of relationships of psychological and contextual determinants with suicidal behaviors

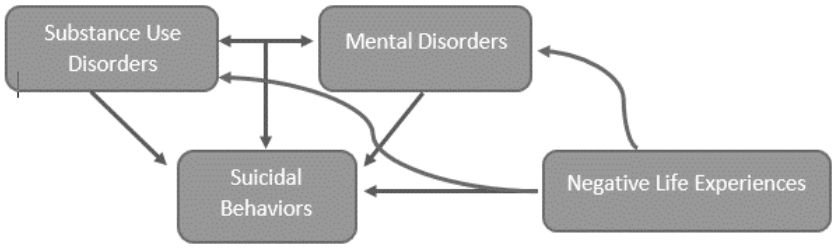


Figure A.3:2. Natural process of suicidal behavior

Suicidal Behaviors

Suicide is the act of deliberately killing oneself (WHO 2014), or in other words the death caused by self-directed injurious behavior with an intent to die as a result of the behavior (CDC 2016). Non-fatal suicide behaviors are suicidal ideation (thinking about, considering, or planning suicide), suicide plan (formulation of a specific method through which one intends to die), and suicide attempt (self-directed, potentially injurious behavior with an intent to die as a result of the behavior; might not result in fatal injury) (CDC 2016).

Suicide is a complex phenomenon and may be determined by the interaction between various factors: psychosocial, biologic, genetic, psychiatric, and temperament/personality. Suicide often occurs on a continuum, from thoughts or ideation, to plans, to attempts, and finally to completed suicide (Figure A.3:2); often however, the phenomenon doesn't evolve gradually, meaning that subjects can commit a suicide attempt without previous ideation and plan (Isometsä and Lönnqvist 1998). The incidence of attempted suicide is estimated to be 10-20 times that of completed suicide (Diekstra and Gulbinat 1993). Suicidal ideation has been shown to be a significant predictor of future suicidal acts (Lewinsohn et al. 1996).

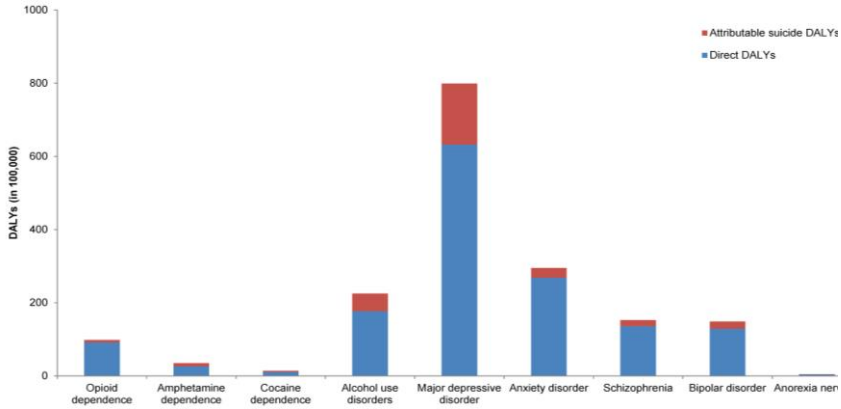
General perspective of suicide

Suicide is a very serious public health problem but is considered preventable. Suicidal behaviors represent 15% of the 15,000 fatal injuries occurring daily in the world (WHO 2012). Every 40 seconds a person dies

by suicide somewhere in the world and many more attempt suicide (WHO 2014). In 2012, the estimation was 804,000 suicide deaths (1.4%), representing an annual global age-standardized suicide rate of 11.4 per 100,000 populations (15.0 for male and 8.0 for females). Over the last 45 years suicide rates have increased by 60% worldwide (WHO 2014).

Suicide is the 15th leading cause of death worldwide (WHO 2014, 2014) and an important contributor to the global burden of disease. Suicide DALYs attributable to mental and substance use disorders amount to 22.5 million (14.8-29.8 million) of the 36.2 million (26.5-44.3 million) DALYs allocated to suicide in 2010. Among mental disorders, major depression was responsible for the largest proportion of suicide DALYs (46.1% [28.0%-60.8%]) (Figure A.3:3). The inclusion of attributable suicide DALYs would have increased the overall burden of mental and substance use disorders (assigned to them in GBD 2010 as a direct cause) from 7.4% (6.2%-8.6%) to 8.3% (7.1%-9.6%) of global DALYs, and would have changed the global ranking from 5th to 3rd leading cause of burden (Ferrari et al. 2014).

Figure A.3:3. DALYs attributable to mental and substance use disorders by disorder, in 2010 (Ferrari et al. 2014).



Suicide is a global phenomenon that occurs in all phases of life and ages (McKeown et al. 2006; Hoven et al. 2010; Suelves and Robert 2012). Many studies have reported high prevalence of suicide in younger ages (<30 years old) (Crosby et al. 2011). Suicide rates among men aged 15-24 years have risen sharply in recent decades (Nock et al. 2008). Suicidal deaths between 15-29 years old represent 8.5% of all deaths in the world (2nd leading cause of death), and between 30-49 years old represent 4.1% of all deaths (5th leading cause of death) (WHO 2014). Multiple attempts are more likely to occur in the adolescent and young adult age groups.

Also, as with age, gender differences have been found in suicidal behaviors. There is a large gender imbalance in suicide attempts, with females more likely to attempt suicide and males more likely to complete suicide (Stefanello et al. 2008; Kanchan et al. 2009; Crosby et al. 2011). Studies have shown that men are more often the performers of effective (lethal, fatal) suicides due to using more aggressive methods (Tsirigotis et al. 2011). Among men 25 to 29 years old, suicide accounted for 20.89 deaths per 100,000; among women of the same ages, it accounted for 3.99 deaths per 100,000 (Minino and Smith 2001). The prevalence of suicidal thoughts in a US national sample was significantly higher among females than it was among males, but there was no statistically significant difference for suicide planning or suicide attempts (Crosby et al. 2011).

Prevalence of suicidal behaviors

Epidemiological studies have highlighted the high prevalence of suicidal behaviors in different populations, especially in marginalized and discriminated groups of society like illicit drug users. Regarding lifetime prevalence in the general population, one systematic review has estimated the variability of suicide ideation to be 3.1-56.0% (interquartile range [IQR], 8.0-24.9), of suicide plans 0.9-19.5%; (IQR, 1.5-9.4), and suicide

attempts 0.4-5.1% (IQR, 1.3-3.5); for 12-month prevalence of suicide ideation it was 1.8-21.3% (IQR, 2.4-8.8), for plans 0.5-12.2% (IQR, 0.9–6.2), and for attempts 0.1-3.8% (IQR, 0.4-1.5) (Nock et al. 2008). Regarding calculations made by other cross-sectional studies based on data from general populations, one study showed a lifetime prevalence for ideation of 13.5%, plan 3.9%, and 4.6% make an attempt, and the cumulative probability of the risk of different suicidal behaviors were: 34% for the transition from ideation to a plan, 72% transition from a plan to an attempt, and 26% from ideation to an unplanned attempt (Kessler et al. 1999). See more studies in Table A.3:2.

Table A.3:2. Observational studies of prevalence of suicidal behaviors in general population samples

Reference	Sample description	Suicide ideation or thought	Suicide attempt
Brosnich and Wittchen 1994	Community survey West Germany (N=1,967)		4.1% (2.2% men vs 4.1% women)* lifetime
Kessler et al. 1999	National Comorbidity Survey (N=5877) USA	13.5% ideation 3.9% plan lifetime	4.5% lifetime
Borges et al. 2000	National Comorbidity Survey (N=8,098) USA		4.6% lifetime (32% men vs 67.3% women)*
Pirkis et al. 2002	Australian National Survey of Mental Health and Wellbeing(N=10,641)	3.4% ideation last 12 m, 16% lifetime cumulative incidence rate	0.4 last 12 m 3.6% lifetime cumulative incidence rate
Ilgen et al. 2007	National sample/ Department of Veterans Affairs (N=8,807) USA	5.6-14.3% lifetime	
Scocco et al. 2008	Community survey in different Mediterranean countries (N=4,712)	3% ideation, 0.7% plan lifetime	0.5% lifetime
Crosby et al. 2011	National Survey on Drug Use and Health. USA (N= 92,264)	3.7% last 12 m	0.5% last 12 m

*Gender differences $p<0.05$

Suicide is one of the leading causes of death among illicit drug users (Borges et al. 2000; Rossow and Lauritzen 2001; Wilcox et al. 2004). The

lifetime prevalence of attempted suicide in a sample of drug abusers (mainly opiate, amphetamines, cannabis, benzodiazepines or analgesics, and alcohol users) from detoxification and short-term rehabilitation was of 45.0%, (Johnsson and Fridell 1997). Darke and Ross found a similar prevalence of lifetime attempts (40.0%) in a sample of heroin users from methadone maintenance units, women being significantly more likely than males to have attempted suicide (50.0% vs. 31.0%, OR 2.25, 95% CI 1.30-3.89) (Darke and Ross 2001). In another study 38.0% of the sample of drug addicts reported having attempted suicide once or several times, 42.0% reported suicidal ideation one month prior to suicide attempt and of those the 53.9% did not report any previous suicide attempts (Rossow and Lauritzen 2001). Roy in two studies with cocaine users found similar lifetime prevalence of attempts (43.5%) (Roy 2009) and 39% (Roy 2001). With respect to the past 12 months, prevalence of suicidal ideation and plan was 41.0% in a sample of substance users (psychotropic drugs, marijuana, and narcotic agents), and among those who had planned to commit suicide, 56.0% attempted suicide (Kwon et al. 2013). Havens found that more than a quarter (27%) of drug users (heroin or cocaine/crack or injecting drugs) reported recent suicidal ideation (previous 6 months) and 5.7% suicide attempts (Havens et al. 2006). Various studies have taken into account the possible gender differences in illicit drug users in regard to suicidal behaviors. Havens et al., found no gender difference in suicidal ideations (Havens et al. 2006). On the other hand, Darke and Ross found significant gender differences, women reporting more suicide attempts than men in a sample of patients in methadone treatment (Darke and Ross 2001), and Cottler et al., found a statistically significant higher prevalence of suicide attempt and ideation in women in a sample of cocaine and opiates use in drug facilities (Cottler et al. 2005). Another study corroborated that suicidal ideations differed by gender (40.8% women vs 36.1% men) with an OR of 1.4 [95% CI(1.0-1.9)] (Rossow and Lauritzen 2001) (Table A.3:3).

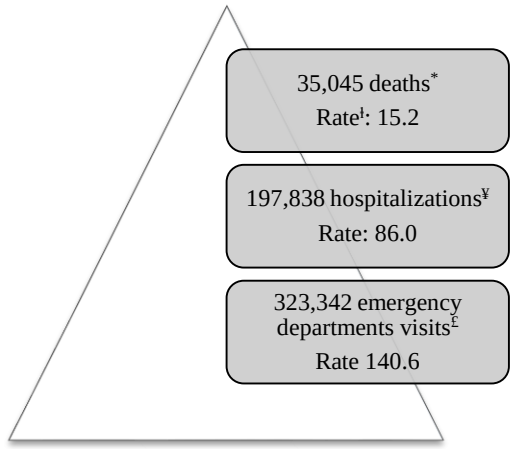
Table A.3:3. Summary of observational studies among substance user population samples: Prevalence of suicidal behaviors

Reference	N	Study population	Recruited place	Suicidal ideation	Suicidal plan	Suicide attempt
Ravndal 1994	139 (73% men)	Opiate, cannabis, psychoactive, amphetamines users	Drug Treatment Center in Norway			47% one or more (66% men vs 38% women)* lifetime
Johnsson and Fridell 1997	125 (60% men)	Opiate, amphetamine, cannabis, analgesic benzodiazepine users	Detoxification and short-term Rehabilitation	83% thoughts last12m previous attempts		50% lifetime, 45% last 12 m (33% amphetamines, 27% heroin)
Rossow and Lauritzen 1999	2051 (64% men)	Opiate and amphetamine users	Inpatient and Outpatient Treatment Units in Norway			32.7% (65.1% more than two), (30% men vs and 37% women)* lifetime
Darke and Ross 2001	223 (52% men)	Heroin users	Methadone Maintenance Units			40% lifetime (31% men vs 50% women)*
Roy 2001	214 (85% men)	Cocaine users	Substance Abuse Treatment Program		39% lifetime	
Rossow and Lauritzen, 2001	800 (60.6% men)	Alcohol, amphetamine, cannabis, opiate and tranquilizer users	Residential and Outpatient Treatment units for drug addicts	42.3% 1 m before admission (36.1% men vs 40.8% women)*	2.7% plans and active preparation	38% lifetime
Garlow et al. 2003	777 (70.6%men)	Cocaine users	Psychiatric Emergency Service	35.4% (37.3% men vs 30.8% women) lifetime		
Cottler et al. 2005	990 (68% men)	Cocaine and opiate users	Public Treatment Facilities	(63% women vs 47% men)* lifetime		(33% women vs 11% men)* lifetime
Havens et al. 2006	317 (58% men)	Injectors (heroin or cocaine/crack)	Street-based, Needle Program, Treatment and STD clinics	27% (injectors 31.1% vs non-injectors 13.7%)* previous 6 m	11.9% vs 8.2% previous 6 m	5.7 vs 2.7% previous 6 m
Roy 2009	406	Cocaine users	Substance Abuse Treatment Program			43.5% lifetime (17.5% men vs 28.8% women)*
Kwon et al. 2013	523 (93.5% men)	Psychotropic, marijuana, and narcotic users	Treatment/Rehabilitation Centers in Korea	Ideation 18.2% and 41% ideation & plan lifetime		55.8% lifetime

* Statistically significant difference $p<0.05$

A large number of persons are hospitalized or treated in emergency departments as a result of nonfatal suicidal behaviors (Crosby et al. 2011; Iribarren et al. 2000). Crosby's study showed more people were hospitalized as a result of nonfatal suicidal behaviors compared to the number of fatal suicides, and an even greater number are either treated in ambulatory settings or not treated at all (Figure A.3:4) (Crosby et al. 2011). Data from the American National Hospital Ambulatory Medical Care Survey (2007-2008) estimated an average of 569,000 persons visited hospital emergency departments annually for self-directed violence, of whom 70% had attempted suicide (Niska et al. 2010). Worryingly**,** it has been estimated that 56.8% of persons who engage in suicidal behavior never seek health care, at least according to Crosby et al. (Crosby et al. 1999).

Figure A.3:4. Public health burden of suicide behavior among adults aged ≥18 years- United Sates, 2008 (Crosby et al. 2011)



*Source: CDC´s National Statistical System
[ł]All rates per 100,000 population; population estimates provided by US. Census Bureau.
[¥]Source: Agency for Healthcare Research and Quality's Health care Cost and Utilization Project- Nationwide Impatient Sample.
[£]Source: CDC's National Electronic Injury Surveillance System- All Injury Program

CHAPTER B. Context related Problems in Illicit Substance Users

Brief summary of the chapter

This chapter explains the particular context of illicit drug users and how the influence of the context results in violence and crime.

B.1. Conceptual Perspective of Violence

Violence is among the primary concerns of communities around the world. Nowadays, violence results in more than 1.5 million people being killed each year, and many more suffer non-fatal injuries and chronic, non-injury health consequences as a result of interpersonal and collective violence (WHO 2009). Furthermore, it often blights people's lives, leading to alcohol and drug addiction, depression, suicide, school dropout, unemployment and recurrent relationship difficulties (Butchart et al. 2015). Violence has been distinguished in many modes, but the main modes in which violence might be inflicted are physical or assault, and emotional abuse or psychological maltreatment. More specific forms are sexual abuse or assault, neglect, domestic violence, deprivation, etc. (SAMHSA 2016). Depending on the degree of the victim-offender overlap, violence can be also classified into three sub-types: self-directed violence subdivided into *self-abuse and suicide*, interpersonal violence subdivided into *family* (child maltreatment; intimate partner violence; and elder abuse) *and community violence* (assault by strangers; violence related to property crimes; and violence in workplaces and other institutions); and collective violence subdivided into *social, political and economic violence*, referring to violence committed by larger groups of individuals (Krug et al. 2002).

Research has shown that exposure to violence can have negative and often severe consequences like affecting mental health, impairing social relationships, academic performance and can lead to aggressive and violent

behaviors towards others (Buka et al. 2001; Macmillan 2001; Begle et al. 2011; Finkelhor et al. 2011). In fact, frequently, the violence received is lived as a traumatic experience. The impact of trauma can be subtle, insidious, or outright destructive. As a consequence, histories of trauma may contribute to develop other mental disorders, and also thoughts of, attempts or complete suicide. How a violent event affects an individual depends on many factors, including characteristics of the individual, the type and characteristics of the event(s), developmental processes, the meaning of the trauma, and contextual factors. The influence of those factors, especially the contextual factors shape human behavior. In fact, the context has always been an important determinant of many behaviors.

Violence is very prevalent in certain contexts, particularly in vulnerable and marginalized groups of society. Among these groups, illicit drug users have been associated with high exposure to violence. The main causes of their exposure are their marginalized condition in society and illegal situation (illegal drug use, illegal activities). Living in such contexts, in which relationships, social network, work relations, etc. have been built based on or related to illegal activities, "normally" generates violent behaviors due to difficulties in relationships, communications, conflicts of interest (mainly economic, business deals), abuse relationships and others.

Most studies indicate that the relationship drug-violence-crime is exceedingly complex and moderated by a host of factors in the individual and the environment. In addition to psychopharmacological effects and biological/genetic aspects, substance use may lead to violence through social processes related to context and life style. Two conceptual frameworks have been put forward to understand and explain the relationships between drug use, violence and crime. In 1985 Paul J Goldstein explained the relation of drug use and violence, and later, Helene

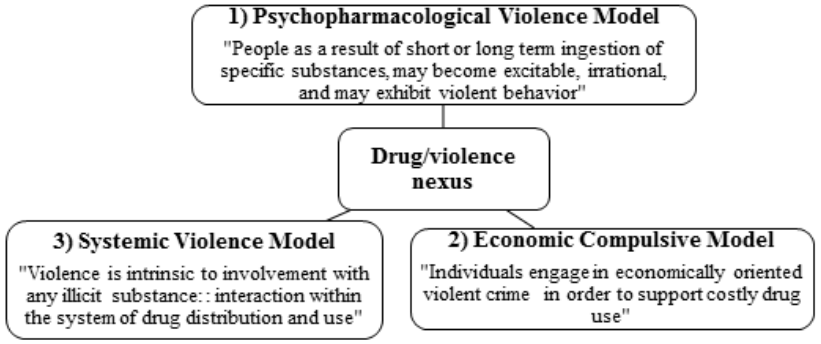
R. White and D.M. Gorman in 2000 formulated other model explaining the relation of drug use and crime, connecting with Goldstein's theoretical model.

B.2. The Nature of the Drug-Violence and Crime Relationship

B.2.1. Drugs/Violence - A Tripartite Conceptual Framework by Goldstein

Goldstein's conceptual framework explains the relation between drug use and violence in three possible ways: 1) The Psychopharmacological Model, 2) The Economically Compulsive Model, and 3) The Systemic Model. Moreover, there can be an overlap between the three models (Goldstein 1985) (Figure B.2:1). The Psychopharmacological Model incorporates the physiological process of ingesting a psychoactive substance. The chemical properties of illegal drugs induce aggressive behavior. So, drug ingestion can cause individuals to become excitable, irrational and/or paranoid. Individuals may also become violent because of the irritability and desperation associated with drug withdrawal symptoms. Additionally, the consumption of drugs may make individuals more susceptible to the violence of others. This is because intoxicated individuals can become problematic or conflicting or not fully aware of their surroundings, and so easy targets for assault or robbery. Thus, psychopharmacological violence may involve drug use by either the perpetrator, victim or both.

Figure B.2:1. Goldstein's theory of Drugs/Violence Nexus: A Tripartite Conceptual Framework (Goldstein 1985)



Cocaine and amphetamine are the illegal drugs more likely to be associated with violence (Baskin-Sommers and Sommers 2006; Martin et al. 2008; Brecht and Herbeck 2013), whereas heroin being a depressive drug is less likely to contribute to it. Moreover, alcohol combined with the above, or by itself, is the legal drug with the strongest association with violence (McClelland and Teplin 2001; Martin et al. 2004). McClelland and Teplin reported a relationship between alcohol intoxication and perpetration of violence, and they found a strong relationship between alcohol intoxication and victimization (McClelland and Teplin 2001). However, evidence to establish the direction of the association between drug use and violence is less conclusive (Parker and Auerhahn 1998; MacCoun et al. 2003).

The *Economic Compulsive Model* applies when drug users engage in profit oriented criminal activity to maintain their expensive drug habits. So, violence occurs as a direct or indirect result of circumstances surrounding attempts to obtain the money for drugs (Boles 2003). Some economic crime, such as robbery, is inherently violent. Other economic crime that is not meant to be violent, such as shoplifting, may accidentally become violent if the social context of the crime is suddenly changed. This might occur if the drug user becomes nervous and panics, if the victim reacts unexpectedly or if a bystander intervenes. All of these unanticipated events may cause the individuals involved to behave irrationally and this can increase the likelihood of a violent confrontation.

The economic compulsive model is most relevant for expensive drugs, because they usually reflect compulsive patterns of use. Cocaine is the most relevant substance related to violence because of its high price, and its strong addiction. Also, the cost of maintaining the habit contributes to an escalating involvement in income-generating crime, and criminal activity (Dobinson 1987; Hammersley et al. 1989). Various environmental and

economic conditions may affect drug abusers depending on their geographic locations. Violence and crime decrease when the illicit drug users are in treatment (Bell et al. 1997). Gottfredson et al. (2008) conclude that in fact the use of heroin increases the probability of income generating crime, but not violent crime, and that the criminality the user engages in is most likely to purchase more illicit drugs (Gottfredson et al. 2008).

The *Systemic Violence* model refers to individuals that can engage in violence during the sale and distribution of drugs. The fact of being involved in drug traffic or other illegal market activities is a strong risk factor of violence and crime in illicit drug users. Collins (1990) suggested that systemic violence typically occurs in areas that have limited mechanisms of social control, high rates of interpersonal violence and are economically disadvantaged (Collins 1990). In this context, the situations prone to violence are the disputes over territory between rival drug dealers, assaults and homicides committed within dealing hierarchies as a means of enforcing normative codes. Other means refer to the usual violent retaliation by the dealer or his/her bosses, elimination of informers, punishment for selling adulterated or phony drugs, punishment for failing to pay one's debts, disputes over drugs or drug paraphernalia and robbery violence related to the social ecology of cropping areas. Furthermore, substantial numbers of users also become involved in drug distribution as their drug-using careers progress and, hence, increase their risk of becoming a victim or perpetrator of systemic violence.

The relation with the drug dealer is very risky and destructive due to abuses. Drug distributors try to get the best benefits, so they could mark an inferior quality heroin with a currently popular brand name. These practices get the real dealers of the popular brand very upset: get a bad reputation on the streets and they lose sales. Purchasers of the phony bags may accost the real

dealers, complaining about the poor quality and demanding their money back. The real dealers then seek out the purveyors of the phony bags. Threats, assaults, and/or homicides may ensue.

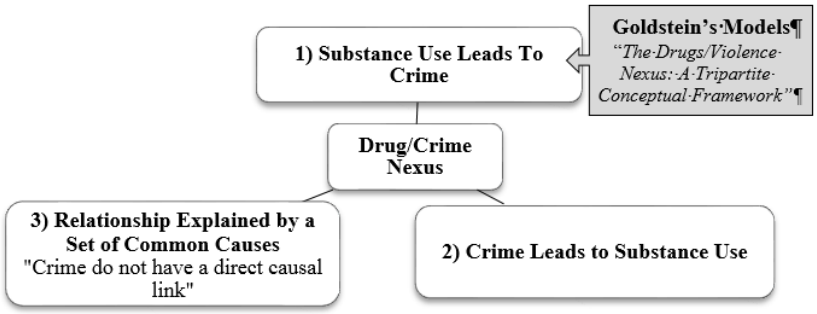
B.2.2. Drugs/Crime - Connection through Three Explanatory Models by White and Norman

The White and Norman's conceptual framework explains the connection between drug and crime through three explanatory models in three possible models: 1) Substance Use leads to Crime, 2) Crime leads to Substance Use, and 3) The relationship is either coincidental or explained by a set of common causes (White and Gorman 2000) (Figure B.2:2).

The first model, *Substance Use leads to Crime*, explains how the effects and chronic intoxication may also contribute to subsequent aggression and crime, due to factors such as withdrawal, sleep deprivation, nutritional deficits, impairment of neuropsychological functioning, or enhancement of psychopathologic personality disorders. This model is aligned with Goldstein's Psychopharmacological Model. On one hand, the Goldstein model explains that the need to obtain drugs compels an individual to

commit robbery (Collins et al. 1985). White's model explains the fact that having incomes generated from a robbery might provide the drug user extra money to secure drugs and therefore place the individual in an environment

Figure B.2:2. White and Gorman's models: "Dynamics of the Drug-Crime Relationship" (White and Gorman 2000)



that supports drug use. Both models are accepted by the community of scientists to understand these relations between drug-crime-violence.

Crime leads to Substance use Model is based on the supposition that certain groups of individuals, especially those who are deviant individuals, are more prone to be in a social context that pushes or encourages them to use drugs. Social situation in some communities condone the heavy consumption or even force them (White 1990). It has also been suggested that several aspects of the professional and criminal lifestyle conduce to substance use patterns such as heavy drinking and drug use (Collins and Messerschmidt 1993).

Further, drug markets can create community disorganization, which, in turn, affects the norms and behaviors of individuals who live in the community. Such community disorganization may be associated with increases in crime that are not directly related to drug selling (Blumstein et al. 1990; Skogan 1990).

The *Relationship explained by a set of common Causes Model* is based on the idea that drug use does not have a direct causal link with crime. Rather, drug and crime are related because they share common causes such as genetic or temperamental traits, personality disorders, parental drug use, and poor relations with parents (White 1990). For example, factors associated with drug use related to family environment, like emotional problems and prior juvenile arrests, were also factors associated with continued drug-use and delinquent offending (Dembo et al. 1994; Baskin-Sommers and Sommers 2006). Crime may have common environmental and situational causes with drug use. For example, rates of violent crime and delinquency are high in neighborhoods that are poor, densely populated, racially segregated, and composed of a transient population; this same environment is related to problematic drug use (Bursik 1988;

Sampson et al. 1997). Social disorganization and lack of social capital appear to be the crucial mechanisms linking these structural characteristics to crime (Skogan 1990).

B.3. Prevalence of Violence

Individuals in illegal substance abuse treatment report significantly higher rates of both expressed and received violence than community-based samples (Brown et al. 1998; Chermack et al. 2000; Walton et al. 2002). Rates of violence among substance abuse treatment samples are around 30-40% or greater. See Table B.3:1.

Table B.3:1. Summary of observational studies: Prevalence of violence in illicit drug users

Reference	N	Drug users	Recruited place	Victimization	Offending
Chermack et al. 2000	252 (50% men)	Marijuana, cocaine or crack, heroin, alcohol	Substance abuse treatment centers		75% physical (57% partner vs 53% non-partner) last 12m
Walton et al. 2002	241 (51% male)	Cocaine, alcohol, marijuana, heroin	Substance abuse treatment centers	59% physical lifetime	49% physical lifetime
Neale et al. 2005	560	Heroin	Substance abuse treatment centers	25% physical last 6m	18% physical last 6m
Baskin et al. 2006	106	Methamphetamine users	Substance use treatment in US		34.9% (38% men vs 30% women)* any kind of violence last 12m
Stevens et al., 2007	545	Heroin, alcohol, marijuana, cocaine	Substance abuse treatment centers in Scotland	42% physical last 6m	
Reid et al. 2007	249/260	Ecstasy	Substance use treatment and emergency rooms in US		62.3% Pushed, grabbed, or shoved someone, 34.94% Physically injured someone 52.6% Slapped or hit someone
Martin et al. 2008	478 (69% men)	Methamphetamine, cocaine and heroin	Street-involved youth in Vancouver	48% attacked, assaulted, or suffered any kind of violence at last 6m	34.5% physically attacked at last 6m
Darke et al. 2010	400	Methamphetamine and heroin	Substance abuse treatment centers	46% last 12m physical forms (assault, armed robbery, sexual assault and homicide)	41% last 12m physical forms, such as assault, armed robbery, sexual assault and homicide
Brecht and Herbeck, 2013	350 (65% men)	Methamphetamine, heroin and cocaine	Substance use treatment in US		56% physical lifetime 39% also + violent crime

* Statistically significant difference $p<0.05$

CHAPTER C. Development and Implementation of Drug Policies and Drug Treatment Network in Spain

Brief summary of the chapter

This chapter explains the epidemic of dependence on illegal drugs in Spain and how the government reacted to this problem. Nowadays Spain has strong drug policies and has developed a solid Dependency Care Network and Drug Treatments. Based on this, this chapter emphasizes harm reduction strategies specially overdose prevention.

C.1. Emergence of the Problematic of Illegal Drugs in Spain

In the late 1970s, Spain had an epidemic of dependence on illegal drugs in the population during a time of great political and social upheaval. The country was transitioning from 40 years under a conservative military dictatorship to a liberal democracy. The country's class structure, economic institutions, and political framework were all undergoing major transformation, as were its social values. The effects of the transition, coupled with an economic crisis, were felt acutely by Spain's youth who were living in a climate of political protest and rebellion. It was in this climate that widespread drug consumption emerged, especially heroin use (Torrens et al. 2013). Individuals from marginalized social classes saw the newly established black market as an opportunity for income, as well as for easy access to drugs (Parés and Bouso 2015).

In 1980, the estimated incidence of problematic heroin use in the population aged 15-44 peaked at 190 per 100,000 (compared to 40 in 1971). On average, incidence was five times higher in men. Injecting heroin incidence peaked and declined rapidly from 1980; heroin smoking did not decline as rapidly, from 1985 onwards its estimated incidence has remained above that of heroin injecting (Sánchez-Niubò et al. 2009). The highest problematic heroin use prevalence probably occurred during 1985-91, fatality rates in the population of drug users studied increased from 13.8 to 34.8 deaths per

1,000 person-years (Ortí et al. 1996). The main causes of mortality in that period were infections, overdose and violence (Ortí et al. 1996). Between 1983 and 1990, 100,000 people acquired HIV through injecting drugs, many more were infected with hepatitis, and 20,000-25,000 died from drug overdose. The highest incidence of HIV infection linked to injecting drug use occurred between 1985 and 1987, with approximately 14,500 infections per year (Torrens et al. 2013).

The government was slow and ineffective in its response to this unprecedented problem. The network for dependence on illegal drugs had not been developed yet and therapy consisted mainly in sending patients to drug-free programs or to residential rehabilitation facilities promoting abstinence, which unlike the drug-free programs were managed by non-health professionals (Camí and de Torres 1984). Spain had very strict laws limiting access to opioid agonist maintenance treatment which was only available through private prescription (EMCDDA 2003; Torrens et al. 2013).

C.2. Political response to the Illegal Drug Problem

Concerns about problematic illegal drug use patterns and all the problems related to drug use alarmed the Spanish government, and society, in the second half of the 80's. The need emerged of developing policies and implementing strategies with effective interventions in order to resolve the national problem of drug abuse. In 1985 a governmental initiative was launched called the National Plan on Drugs (*Plan Nacional sobre Drogas [PNSD]*) created under the Ministry of Health, Social Policy and Equality. The aim was, and still is, to coordinate and promote policies on drugs through various public administrations and social organizations (PNSD 1985). This new ministerial order abolished the private prescription of methadone and hastened the development of a public network for the

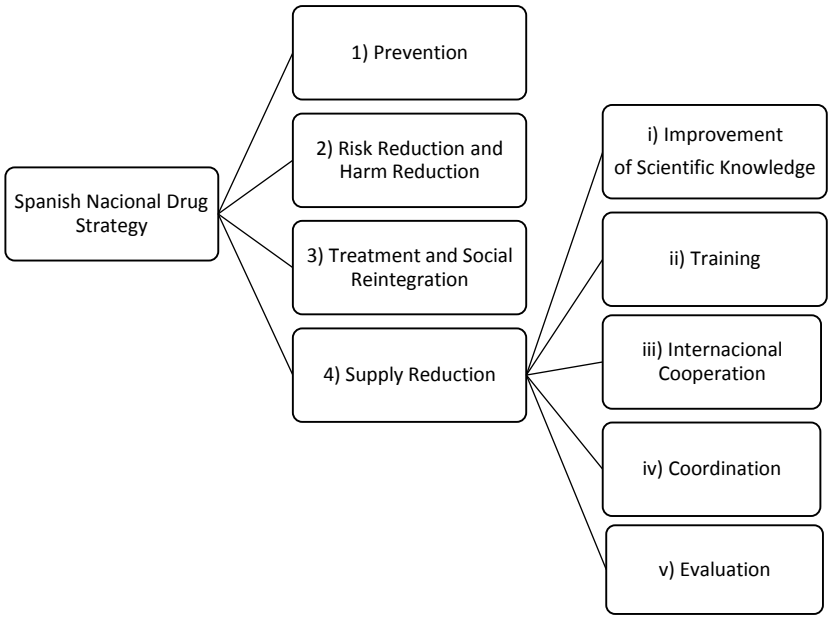
treatment of opioid dependence (with methadone as opioid agonist). The drug had to be prescribed in specially-licensed prescription centers by physicians in the public sector (EMCDDA 2003).

In 1990, the approach to the treatment of heroin dependence changed; a drug-free approach gave way to one focused on harm reduction. Existing public drug treatment centers included opioid agonist maintenance treatment in their therapeutic offer and new drug treatment centers were created to provide opioid agonist maintenance treatment. To do so, these centers needed accreditation and had to provide the Regional Government with a monthly list of all patients included in opioid agonist maintenance treatment and their current status (Domingo-Salvany et al. 1999). Opioid agonist maintenance treatment for opioid dependence was available in specially-licensed public or non-profit centers, including prisons, with full or partial public support. Centers, rather than individual professionals, were licensed to both prescribe and dispense opioid agonist maintenance treatment and only physicians working in the special centers could order this treatment. Methadone was practically the only drug used in opioid agonist maintenance treatment (García-Alonso et al. 1989). A decrease in mortality associated with methadone maintenance treatment (MMT) has been demonstrated by a cohort study in which the main factor associated with overdose mortality was not being in MMT at the time of death. Also, MMT influenced AIDS related mortality. In this study, overall mortality decreased from 59 deaths per 1000 person-years in 1992 to 16 in 1999 (Brugal et al. 2005).

Over time, the Spanish drug policies have been strengthened and have integrated strategies focused on a holistic perspective of the person. The recent Spanish National Drug Strategy (2009-2016) is built around four pillars: 1) Prevention; 2) Risk reduction and harm reduction; 3) Treatment

and Social Reintegration; and 4) Supply Reduction. It is supported by five cross-cutting or transversal areas: i) improvement of scientific knowledge; ii) training; iii) international cooperation; iv) coordination; and v) evaluation (Figure C.2:1). The strategy has 14 objectives, including: reducing the use of legal and illegal drugs; delaying the age of first contact with drugs; guaranteeing quality assistance adapted to the needs of all people affected by drug use; reducing or limiting the harm caused to drug users' health; and facilitating their social integration (PNSD 2009).

Figure C.2:1. Pillars of the National Drug Strategy



Spain is a decentralized state consisting of 17 autonomous communities; Catalonia is one of those, and two autonomous cities (Ceuta and Melilla). Over time, the national government has transferred many of its duties to the autonomous regions. The regions with the highest level of self-government are Andalucía, Catalonia, the Basque Country, Galicia, and Navarre. Each autonomous community has an organizational structure that acts as an Autonomous Community Drugs Plan to implement drug policies in their

respective territories. They have all developed their own drug strategies. Major Spanish cities (particularly Madrid and Barcelona) also have competences in the financing, planning and management of drug treatment resources and programs within their territory. These are normally carried out in cooperation with the Plans of the Autonomous Communities of these cities. The Catalan Autonomous Community Drugs Plan is called *Pla d'Actuació en Prevenció sobre Drogues 2012-2016 (PAPD)* and it is supported by the department of health through the Catalan Public Health Agency (APSCTA 2013). Law 20/1985 launched the first Catalan drug plan (published in 1987), which, through the Catalan Drug Dependency Care Network, addressed the drug situation (Parés and Bouso 2015).

Population treated at drug treatment facilities

In 2013, the Spanish health system registered a total of 51,946 of drug users in drug services. Among illegal drugs, cocaine abuse or dependence accounted for the highest number of treatment admissions (38%), followed by cannabis (33%) and opiates (25%); however for those who initiate a treatment, cannabis was the main reason (46%), specifically for young people <18 years (95%). Among the illegal drug-related hospital emergencies in 2013, cocaine was involved in 45%, exhibiting a slightly downward or stable trend in recent years; cannabis had a clearly upward trend (representing now 35%), and heroin (12%) maintained its descent. (PNSD 2015).

In 2014 the Catalan Drug Dependence Treatment Network declared a total of 251,501 individual visits (mostly from outpatient treatment centers), 31,476 cases of patients attended in therapeutic groups, 6,726 cases attended in discussion and support groups for relatives of the drugs dependent, 5,525 outpatient detoxification and 143,137 analyses for drugs in urine (ASPCAT 2014). In the last four years (2011-2014), the number of

treatment episodes for illegal drugs has increased to 5.8% (Table C.2:1). Levels of heroin treatment have been stable since 2013, as also happens with cannabis and other drugs (other opiates, stimulants sedatives, hallucinogens, etc.). In the case of cocaine the level remains more or less stable and it is the substance with more drug treatment attributed (2,607 treatments, 18.68%), followed by cannabis (12.63%), heroin (12.29%) and other drugs (6.29%). Related to gender, men continue to receive more drug treatment than women (IDESCAT 2011, 2012, 2013 & 2014).

Table C.2:1. Number of people by type of illegal drug and by gender in Catalonia (IDESCAT 2011, 2012, 2013 & 2014)

	2011	**2012**	**2013**	**2014**
Heroin	**1,643** - Men: 1,364 - Women: 279	**1,616** - Men: 1,350 - Women: 264	**1,554** - Men: 1,286 - Women: 268	**1,716** - Men: 1,452 - Women: 264
Cocaine	**2,740** - Men: 2,237 -Women: 503	**2,788** - Men: 2,316 - Women: 472	**2,769** - Men: 2,228 - Women: 541	**2,607** - Men: 2,120 - Women: 487
Cannabis	**1,419** - Men: 1,156 - Women: 263	**1,593** - Men: 1,309 - Women: 284	**1,552** - Men: 1,249 - Women: 303	**1,763** - Men: 1,408 - Women: 355
Others[ł]	**586** -Men: 417 -Women: 169	**443** - Men: 301 - Women: 142	**426** - Men: 279 - Women: 147	**878** - Men: 644 - Women: 234
Total	***6,388*** *- Men: 5,174* *- Women: 1,214*	***6,440*** *- Men: 5,276* *- Women: 1,162*	***6,301*** *- Men: 5,042* *- Women: 1,259*	***6,964*** *- Men: 5,624* *-Women: 1,340*

[ł] Other opiates, other stimulants (non-cocaine), sedatives, hallucinogens, inhalants

C.2.1. Drug Dependency Care Network and Drug Treatments

The public sector is the primary provider of treatment, followed by non-government organizations (NGOs) and private organizations. Drug treatment in Spain is mostly funded by the public budget of the central government, autonomous communities and cities and by some municipalities, usually the big cities. A specific Drug Dependence Care Network is widely distributed throughout the country. Therapeutic

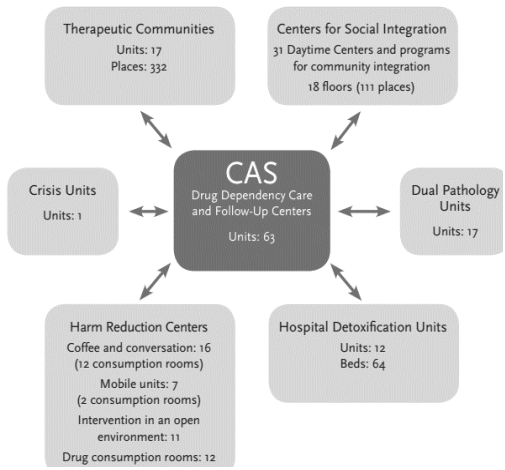
provision comprises outpatient and inpatient treatment networks (PNSD 2016):

- The *Outpatient Network* mainly consists of 499 specialized drug treatment centers (including mental health units) and low-threshold services (12 supervised drug consumption facilities, 58 social emergency centers and 34 mobile units). The mental health units are the most numerous facilities and constitute the backbone of the treatment system.
- The *Inpatient Network* includes 56 hospital detoxification units, 42 support apartments for treatment and social reintegration, therapeutic communities (the most numerous and characteristic facility within the network, in total about 115), and 82 penitentiary centers.

A specific substitution treatment for opiates is available in specialized outpatient centers and other health and mental health centers, and also in inpatient facilities and in prisons.

The Catalan Drug Dependency Care Network called "*La Xarxa d'Atenció a les Drogodependéncies (XAD)*" is the Catalan public network of specialized services in care and monitoring of problems related to use, abuse and dependence on psychoactive substances. It provides treatment and social-community resources for all types of drug addictions through

Figure C.2:2. The Structure of the Catalan Drug Dependency Care Network (Parés and Bouso 2015)



different services distributed throughout the country. The Department of Health of Catalonia, through the Catalan Public Health Agency and the Mental Health and Addictions Plan coordinate, plan and propose the guidelines of the XAD. There are a total of eight different services offered (Figure C.2:2), the majority of them are located in urban areas where there is more population and drug addicts (GENCAT 2016a, Parés and Bouso 2015).

The *Outpatient Treatment Centers (OTCs)* called "*Centres d'Atenció i Seguiment*" provide drug treatment and prevention. They give also direct access to other kinds of health care resources for treating addiction. The centers attend all people aged over 18, younger patients being directed to an adolescent program of substance use behaviors. In addition, the centers coordinate with programs of alternative penal measures (criminal and judicial system). They also give support to social and occupational reintegration programs. They provide information and advice for patients and their families; medical treatment for drug Detoxification, substitution treatments (methadone maintenance program), relapse prevention and other complications, vaccinations and others; psychological treatment with motivational support (individual, group and family therapy) health programs and preventive health education (needle exchange and condom provision); and information, guidance and advice on social, family, work, economic, judicial, and leisure aspects.

The Therapeutic Communities (ThCs) called *"Comunitats Terapéutiques"* offer a shorter-term residential or outpatient day treatment, focusing on the recovery of the whole person and overall lifestyle changes, not only abstinence from drug use. This orientation acknowledges the chronic, relapsing nature of substance use disorders and holds the view that lapses are opportunities for learning. Following the concept of "community as

method," ThCs use active participation in group living and activities to drive individual change and the attainment of therapeutic goals. The emphasis is on social learning and mutual self-help, individual participants take on some of the responsibility for their peers' recovery.

The Harm Reduction Facilities (HRF) called *"Centres de Reducció del Dany Associats al Consumo de Drogues"* have individual and collective strategies which aim is to reduce the physical and psychosocial damage associated with drug consumption and to motivate and facilitate treatment access. Active illicit drug users may participate in these programs. In Catalonia in 2016 there are 21 HRF (GENCAT 2016b). Harm reduction services are provided by a large public network of facilities, including social emergency centers, mobile units, pharmacies and prisons. Most harm reduction programs include a socio-sanitary service that offers preventive educational interventions, overdose prevention activities, sterile injecting material, testing for drug-related infections, vaccination against hepatitis A and B virus infections and emergency care and assistance to injecting drug users who are not usually in contact with any assistance intervention.

C.2.2. Overdose Prevention Programs

As mentioned before, overdoses, along with infectious diseases and suicide are the main causes of death among drug users, especially among opiates-heroin users and injectors. Overdose accounts for nearly half of all deaths among heroin injectors and other injectors (leading cause of death) worldwide, exceeding HIV and other disease-related deaths (Hickman et al. 2003). During the 1990s all-cause mortality among opioid users in Barcelona reached 3.5 deaths per 100 person-years (Ortí et al. 1996; Bargagli et al. 2006), and in 1999 standardized opioid overdose mortality in the city was 0.5 per 100 person-years (Brugal et al. 2005). It is likely that people who use opiates also experience a high rate of non-fatal overdose

(Degenhardt et al. 2011). Non-fatal overdose is very frequent among opiate users, with an annual prevalence ranging from 9 to 22% (Brugal et al. 2002). Non-fatal overdose can significantly contribute to morbidity, provoking cerebral hypoxia, pulmonary edema, pneumonia and cardiac arrhythmia, that may result in prolonged hospitalizations and brain damage (Warner-Smith et al. 2002).

Many observational studies have looked at factors that place drug users at increased risk of overdose. Among the most common factors are injection (Darke et al. 1996; Powis et al. 1999), use following a period of abstinence (e.g. due to incarceration or treatment for dependence), being HIV positive (Green et al. 2012), use of other central nervous system depressants, such as alcohol or tranquillizers and high or increased heroin purity (Darke and Ross 2000). Furthermore, other factors which have been found related include prolonged duration of heroin use (Darke and Zador 1996; Sporer 1999), changes in dose or formulations, polypharmacy and mixing substances (Jones 2013; Jones et al. 2014) and not being in methadone treatment (Darke and Ross 2000; Brugal et al. 2005).

An overdose can reduce sensitivity to oxygen and carbon dioxide levels, reduce respiratory drive and allow tidal volume and respiratory rate to decrease. The resulting hypoxia can cause loss of consciousness, and eventually, death. Signs of an overdose include decreases in respiratory rate, abnormal breathing sounds (snoring, gurgling, choking, etc.), decreased consciousness, miosis, and a blue/gray tinge of the skin, especially the lips and nail beds (White and Irvine 1999). As a potential remedy for overdose, naloxone has been identified as a medication that reverses the effects of an overdose from opioids (e.g. heroin, methadone, morphine) (Baca and Grant 2005). It usually takes two to five minutes to take effect and wears off after 30 to 90 minutes (Chamberlain and Klein

1994). There are multiple reasons to equip people in the community with a naloxone rescue kit. First, most opioid users do not use alone and so have people around them that can intervene should an overdose occur (Powis et al. 1999; Baca and Grant 2005). Second, risk factors for overdose have been identified (discussed above). Third, the extent of hypoxic brain injury is time-dependent, so the sooner hypoxia is reversed, the better (Michiels 2004). Fourth, bystanders can be trained to recognize and respond effectively to overdoses with naloxone (Green et al. 2008). Finally, fear of being arrested sometimes discourages bystanders from calling for medical assistance, and thus makes naloxone an important tool for people hesitant to call for help (Davis et al. 2013).

Opioid overdose can be fatal or non-fatal, but both can be prevented and treated. Various kinds of intervention have been implemented worldwide to prevent opioid overdose both fatal and non-fatal (Sporer 2003; EMCDDA 2013). Overdose prevention programs are based on harm-reduction strategies, they aim to increase knowledge about overdose risk factors, enhance recognition of an overdose, and train in first aid techniques and in the use of naloxone (Sporer 2003). These programs are mainly targeted to people who use drugs, especially by injection and opiate users.

In Catalonia, the overdose prevention programs have been successfully implemented progressively in drug treatment facilities since 2009. Firstly in Harm Reduction Facilities (2009), followed by Therapeutic Communities (2010) and Outpatient Treatment Centers (2011) [XM, personal communication].

By 2013, a total of 1,007 professionals had been trained and 4,738 drug users trained. These programs inform and teach drug users to prevent, to recognize and how to treat an adverse reaction in colleagues. They also include education on preventing acute cocaine and amphetamine poisoning.

Naloxone Kits are also provided for emergency (Espelt et al. 2015). (Table C.2:2).

Table C.2:2. Overdose Prevention Programs information

2009-2013	Professionals trained	Drug users trained	Kits distributed
HRF	614	2,049	4,383
OTC	162	891	897
THC	231	1,798	0
Total	1,007	4,738	5,280

The effectiveness of the OPPs has been positively assessed. Different studies have reported that overdose prevention programs are associated with increased knowledge about overdose and overdose response behavior (Pollini et al. 2006; Wagner et al. 2010; CDC 2012; Lankenau et al. 2013), including the OPPs in Catalonia (Sarasa-Renedo et al. 2014).

2. JUSTIFICATION OF THE THESIS

Based on evidence and knowledge concerning the drug field to date, this thesis will attempt to contribute by studying certain gaps affecting specific aspects of illegal drug use.

In order to introduce the different aspects addressed in this dissertation, a conceptual model was built, and is specified in Figure 2:1. This conceptual model is based on epidemiology and public health concepts, and considers three broad issues exposed in panels. The central one deals with the drug use problem itself and includes the natural history of the disease (i.e. addiction), and its health related consequences; also, it contemplates epidemiological assessment problem. The left panel refers to the risk factors associated with (illegal) drug use; they are classified as intrinsic factors (i.e. related to users themselves, like biological and genetic factors), and extrinsic factors, those coming from social interactions and contextual circumstances. Note that some aspects, like mental health problems, may 'play' different roles, depending on the case, as they may be a health related problem or a risk factor for drug use. The right panel includes the social and health care response to problematic drug use and includes strategies based on different perspectives: from medical to social. These perspectives can focus on prevention, treatment, and social support. The prevention strategy deals with decreasing risk factors, but also avoiding drug use relapse and appearance of health related consequences. The treatment strategy would provide adequate interventions to minimize the problem and, if possible, achieve a drug free state. Aligned with treatment and prevention strategies, harm reduction interventions would minimize health related consequences when the specific problem (i.e. drug use) cannot be solved. The social strategy would also contribute to harm reduction programs and provide aid

and support in different life aspects (e.g. occupational, legal, human rights) that can be severely affected in this population.

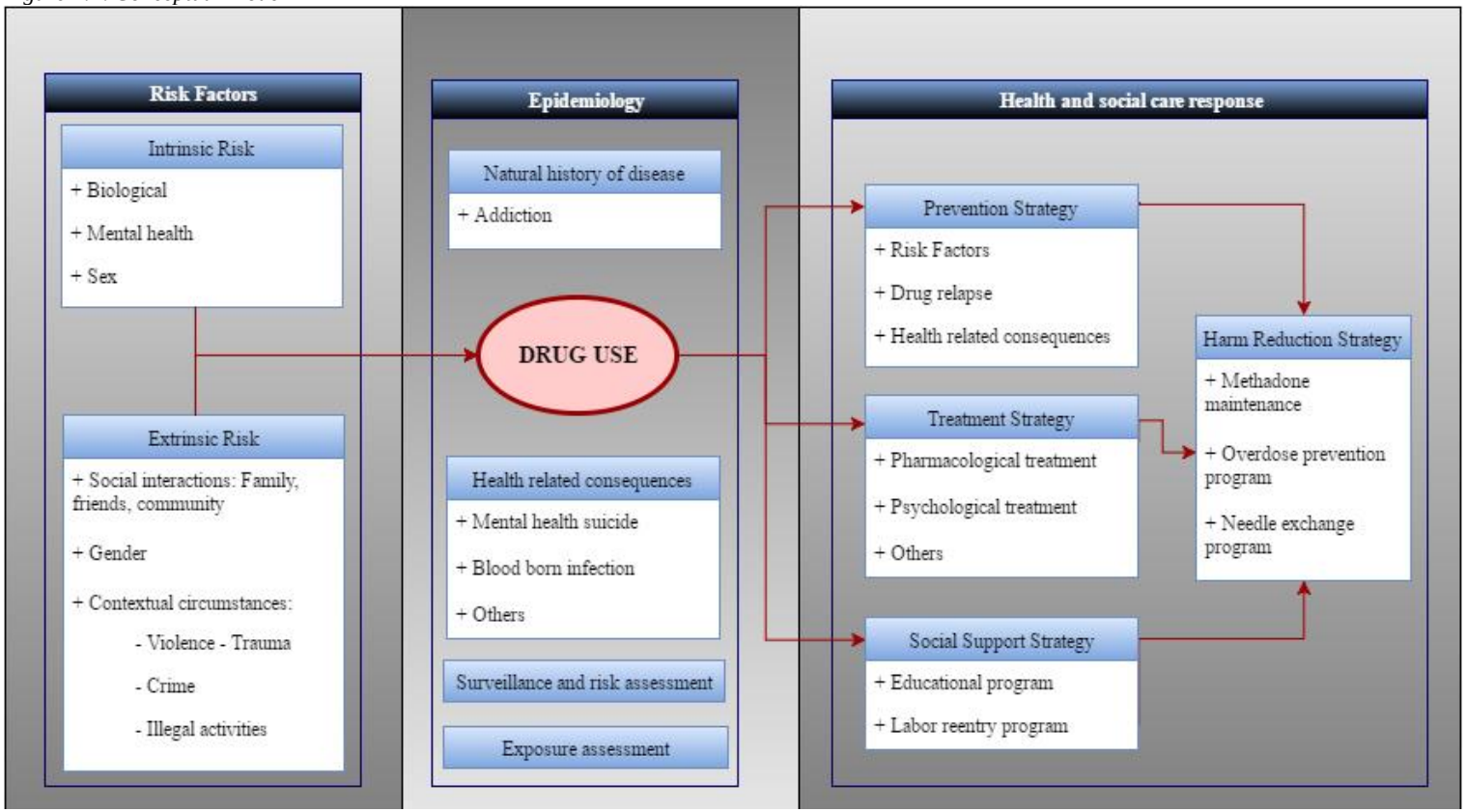
Focusing on drug use itself, one of the health related problems refers to mental health disorders and dual diagnoses. This aspect has already been studied among Catalan drug users (Torrens et al. 2006; 2011), however, there is one specific mental health problem that requires careful attention and has not been adequately assessed among drug users in our country: suicidal behavior. In fact, drug use or addiction can contribute to physical, psychological and social problems which can further increase the risk of suicide. Furthermore, it is also relevant to study the characteristics associated with suicidal behavior in order to improve suicide prevention strategies. In this regard, one key aspect would be gender.

Among factors associated with suicide there are traumatic experiences. In fact, the setting in which many illicit drug users live may make them prone to illegal activities that can lead to violence and crime. This is a particular social aspect of the context related to illicit substance use that has been little studied in Spain and Europe. In fact, this is an area imbedded in the daily life of illicit drug users that conditions the way they behave and contributes further to the drug problem. It is also necessary to identify this aspect of their life, as well as the traits of subjects more frequently involved in it, to better manage treatment and prevention initiatives. A relevant aspect to consider is whether gender differences exist, both in its prevalence and in subjects' characteristics leading to perpetrating violent behavior or suffering it.

In relation to the health care response, treatment and other services have developed progressively since illegal drug use bloomed as a public health problem in the late 70's and 80s in Spain. Although the knowledge of treatment services and adequacy of programs has already been well studied

and developed in many different settings, there is one aspect of the harm reduction strategy which is mainstream in Spain, that needs to be further evaluated. This is the case of the Overdose Prevention Programs (OPP) that were implemented in Catalonia in 2009. These programs were initially offered mainly in Harm Reduction Facilities in the biggest conurbation (i.e. Barcelona), and over time also in Therapeutic Communities and Outpatient Treatment Centers. However, neither its geographical coverage nor the proportion of the target population reached had been assessed, aspects relevant for health policy. Furthermore, the study aimed to describe whether certain characteristics of subjects influenced OPP participation, a key issue in improving recruitment of the target population.

Figure 2:1. Conceptual Model



3. OBJECTIVES AND HYPOTHESIS

3.1. First objective:

To assess, separately by gender, the prevalence of suicidal ideations and plans among illicit drug users and to study its association with drug-scene contextual factors, including recent trauma experience and crime involvement.

Hypothesis:

- Prevalence of suicidal ideations and plans in illicit drug users differ by gender.
- Trauma experiences, like interpersonal violence, are associated with suicidal ideation and plans for both genders.
- Being involved in drug trade and marginal income generation/activities is related to suicidal ideation and plans.

3.2. Second objective

To estimate the prevalence of violence in illicit drug users, in order to identify characteristics of victims and offenders, as well as to study the victim-offender overlap, separately for men and women.

Hypothesis:

- Men are more likely to suffer violence than women
- Men involved in drug trade or other related illegal activities are more exposed to victimization and perpetration than women involved in these activities.
- The association between violence and criminal acts differs by gender.

- The victim-offender overlap is large, with no difference between genders.

3.3. Third objective:

To assess coverage of overdose prevention programs among opiate users and/or injectors in Catalonia and to identify characteristics related to attendance to these programs.

Hypothesis:

- Coverage of overdose prevention programs is higher in big metropolitan conurbations than rural areas.
- Men attend overdose prevention programs more often than women.

4. METHODOLOGY

Data used for this thesis was obtained from the research project "*Development of methodological tools for policy and programme evaluation in the drug abuse field*" financed by by Spanish Government Grant: Instituto de Salud Carlos III -FIS PI11/01358. The study was planned to be developed in Catalonia, Spain. It formed part of a work developed within the framework of the European Union JUST/2010/DPIP/AG 1410, called "New Methodological Tools for Policy and Program Evaluation". The overall work goal of this EU grant project was to increase knowledge of the illicit drug market from the demand supply side, behaviors of drug users, and of drug legislation in countries participating in the project, in order to produce effective global indicators to evaluate actions and policies affecting drug supply and drug reduction.

Catalonia Region

Figure 4:1. Catalonia regions

Catalonia is an autonomous community of Spain, located on the northeastern part of the Iberian Peninsula. Its extension is of 32,108 km^2, with a total of 7.553.650 inhabitants in 2013. It has four provinces: Barcelona with 5,540,925 inhabitants (h), Tarragona 810.178 h., Girona 761.632 h., and Lleida 440.915 h. (Figure 4:1) (IDESCAT 2013).

Sample design

The European study targeted a sample of 500 drug users in each participating country. In Catalonia subjects would be recruited in health care facilities from the public drug use health network. Subjects with drug use problems would seek care mainly in OTC (Outpatient Treatment Centers), however some other health care facilities were taken into account to consider drug users in different stages of the disorder. Three types of health care facilities were included: OTC, ThC (Therapeutic Communities) and HRF (Harm Reduction Facilities).

The territory was divided in five areas: Barcelona-city, Barcelona province, Tarragona, Girona, and Lleida. As it is not possible to obtain a representative sample of illicit drug users, a representation of the whole territory was pursued through selection of facilities taking the population size into account.

A list of current (2010) public OTC with the actual number of patients seen was obtained and centers with more than 45 new visits for illegal drugs per year were considered for inclusion in the study. Regarding the five areas considered, in Barcelona city and Barcelona province half of the centers were selected according to strategic location, whereas in the other areas where clients were fewer, all (Tarragona -three and Lleida -one) or nearly all (Girona, three of four) centers were included. Based on the annual number of new visits a fixed number of subjects to be recruited was assigned (although not in a directly proportional way). In the OTC, criteria were established for selection of subjects in different stages of drug use.

Regarding HRF, all facilities would be included, though two of them didn't provide any participant. The number of participants allocated to these facilities was one hundred. The sample should cover all days of the week

and different schedules, and a quota sampling considering the proportion of women (20-25%), foreigners (25%) and territorial areas was defined.

All ThC associated with a network of these kind of centers, also including therapeutic apartments, expressed a willingness to participate after a project information meeting with them. They were assigned one hundred subjects that were allocated according to the sample size of each one of them.

Finally, 48 drug treatment facilities were included in the study: 26 Outpatient Treatment Centers (OTC), 12 Therapeutic Communities (ThC), and 10 Harm Reduction Facilities (HRF).

Sample Recruitment

The recruitment process took place from April to June 2012. During this period, a total of 556 illicit drug users were invited to participate on the study. A confidential code, based on name letters, birth date and sex, was assigned to each subject approached, allowing identification of duplicates. Forty-two subjects (7.5%) rejected participation for different reasons: to be in a hurry [3.6%], not interested [2.1%], unknown reasons [1.4%], and two others didn't complete the interview [0.4%]. Finally, 514 illicit drug users (92.4% of the initial sample) were included in the study.

Data Collection

Data was collected through a questionnaire, composed by 78 items about different aspects of drug use patterns, socio-demographic, health status, drug-market activity, violence, crime, suicidal behaviors, and evaluation of prevention programs. Questions involved single and multiple-choice answers, semi-open with the option 'Other' and facilitating a space to write the correct answer. Filter questions were used for specific questions. Reference periods were used for some outcomes (ever, last week, last 30 days and last 12 months). The questionnaire, in a paper format, was piloted

prior to the study and time estimated to complete it was 45 minutes. (Annex 2).

As relevant for the objectives of the study, questions on development of suicide, violence and participation in overdose prevention, as well as appropriate variables, are described more thoroughly:

- In the questionnaire, the presence of suicidal ideation and/or plans (IP) was assessed using two questions based on the Composite International Diagnostic Interview (CIDI) (Robins et al. 1988; Kessler and Ustün 2004) referring to the previous 12 months: 1) Did you think about committing suicide? and 2) Did you make a suicide plan?. These were combined into a single variable, Suicide IP, with categories 'yes', reflecting a positive answer to either of the two original questions, or 'no' to both.

- Violence was assessed based on five questions referring to the last 12 months. These questions were selected from a guide about conducting community surveys on injuries and violence of the WHO (Habibula et al. 2004). The first four questions provided information about violence suffered: *1) How many times have you been attacked, kicked, burned etc. or injured by firearm, knife, stick, broken bottle etc.?* 2) *How many times have you been a victim of any physical aggression not involving any weapon?* 3) *How many times have you been a victim of any sexual abuse?,* and 4) *How many times have you been a victim of any psychological abuse?*. Answers to these questions were summarized in a variable called "victim" in order to obtain overall victimization assessment of the study sample. It was considered affirmative when a respondent reported being a victim of any type of violence or aggression (physical with or without weapon, sexual, or psychological). The term "traumatic experience" was used to refer collectively to these forms of victimization. Only one question referred to violence perpetrated: 5) *How many times did you physically*

attack another person? (with weapon, beating, pushing, etc.). If a violent episode was reported the participant was considered "physical offender".

- Income generating activities (IGA) referred to sources for drug money, in which we distinguished between i) legal income generation activities (money obtained from family, partner, legal job, pension or street trade) and ii) illegal and/or activities (money obtained from sex work, stealing, peddling, begging, borrowing on credit from the dealer). "Legal activities" was coded if no illegal and/or marginal activity was reported.

- Alcohol risk use was assessed through the AUDIT C instrument (i.e. short form of AUDIT) referring to the last 12 months (Gual et al. 2002). Men with a score of 4 or more and women with 3 or more were considered risk alcohol users.

- Recent illegal polydrug use was defined as the daily use of two or more illicit substances during the last 30 days of active use.

- Information about having participated in OPPs was collected through the following questions: 1) Have you ever participated in any group or individual training on how to prevent or treat an overdose?, 2) When? -Less than two years ago, two to five years ago and more than five years ago-, and 3) Where have you been trained? OTC, ThC, HRF. The coverage was assessed using "the Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users" (WHO, UNODC and AIDS 2009).

The questionnaire administration was mainly hetero-administered, by a health professional from the same treatment facility in the OTC and by external interviewers in the HRF; they were previously trained and had the support of an administration manual. However, in the ThCs it was self-administered with assistance of an onsite health professional available to

clarify any doubts (who had the administration manual). The administration manual had two parts: in the first one the recruitment process was explained, as well as steps and selection criteria; the second part described the meaning of the questions and provided specific instructions to handle questions and responses.

The study obtained ethical approval from the IMIM (Hospital del Mar Medical Research Institute) ethics committee. Informed consent was obtained from participants prior to their involvement in the study. An economic compensation of 10 € were rewarded only to HRF clients.

Data Management and Statistical Analyses

As questionnaires were previously formatted in a Teleform^{R} format, data collected could be transferred to a database through scanning. After scanning, extracted information was revised manually, especially for handwritten information (e.g. figures and open answers), they were read, evaluated, verified and exported to a pre-final database (Jørgensen and Karlsmose 1998). Afterwards, the database was reviewed for internal consistency and data accuracy.

Descriptive analyses were done to characterize the study sample and Chi^2 and t-tests were used for comparisons. For multivariate analyses, Poisson regression models with robust variance were used. Using these models, associations are assessed as prevalence ratios, instead of odds ratios as in logistic regression models. Odds ratios can approximate to prevalence ratios when prevalence of outcomes are smaller than 10%. However, in our case most prevalence were higher, so Poisson regression analyses, in which prevalence ratios are obtained directly, were preferred (Coutinho et al. 2008).

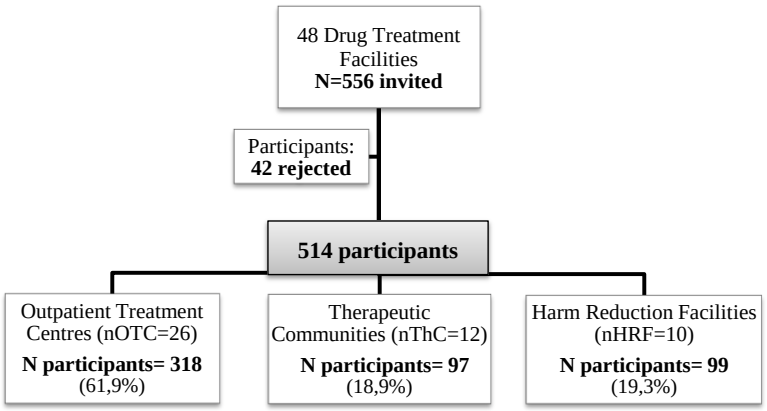
As each recruitment center had clients with different profiles of socio-demographic characteristics and of patterns of drug use, we took into account this fact in the analyses. Therefore, correlated observations according to the type of recruitment center (HRF, OTC or ThC) were controlled through the Generalized Estimating Equations (GEE) procedure (Liang and Zeger 1986; Hanley et al. 2003) in all analyses. They were performed using SPSS version 18 (PASW Statistics for Windows, 2009).

Final Study Sample

Of a final sample of 514 illicit drug users, the majority of them came from OTC (61.9%), followed by ThC (18.9%) and HRF (19.3%) (Figure 4:2).

The average age of sample participants was 37.9 years (SD 8.62)(range: 18-71) and included 393 men (76.5%) and 121 women. The majority of participants were Spaniards (90.0%) and half of them residents in Barcelona city and its conurbations (54.1%). Over half of both, men and women, were unemployed or had never worked (60.1%) and related to level of education only the 30.2% had completed high school or higher education (Table 4:1). The percentage of men who started illegal drug use when under or equal

Figure 4:2. Description of the sample recruitment by type of drug treatment facility



aged 12 years old was 15.5% and for women it was 7.4% ($p<0.05$). The majority of participants had been cocaine users (93.2%), while 36.8% had used opiates and 43.5% had ever used parenteral route. Around one third of subjects were illegal polydrug users.

Table 4:1 Study sample description

		Total N=514	**Recruitment Center**					
			OTC		HRF		ThC	
		N	N	%	n	%	n	%
Sex	Men	393	235	73.9	78	78.8	80	82.5
	Women	121	83	26.1	21	21.2	17	17.5
Age	≤ 30	87	60	18.9	8	8.1	19	19.6
	From 31 to 40	229	138	43.5	47	47.5	44	45.4
	≥ 41	197	119	37.5	44	44.4	34	35.1
Country of birth	Spain	462	288	90.6	79	79.8	95	97.9
	Other	52	30	9.4	20	20.2	2	2.1
Province of residence	Barcelona	374	225	71	76	79.2	73	75.3
	Tarragona	57	39	12.3	10	10.4	8	8.2
	Lleida	37	20	6.3	10	10.4	7	7.2
	Girona	38	30	9.5	0	0.0	8	8.2
	Other[a]	4	3	0.9	0	0.0	1	1.0
Municipality	BCN & BMC[b]	276	155	48.7	79	79.8	42	43.3
	> 100,000 inh	93	58	18.2	16	16.2	19	19.6
	< 100,000 inh	145	105	33.0	4	4.0	36	37.1
Employment Status	Working	100	76	23.9	3	3.0	21	22.1
	Unemployed / Had never worked	313	185	58.2	70	70.7	58	61.1
	Disability / pensioner	99	57	17.9	26	26.3	16	16.8
Level of education	Primary / elementary	155	85	26.7	42	42.4	28	28.9
	Secondary	204	127	39.9	37	37.4	40	41.2
	High school / university	155	106	33.3	20	20.2	29	29.9

[a] *BMC* Barcelona Metropolitan Conurbation

[b] Other non-Catalan province

5. THESIS STUDIES. METHODS AND MAIN RESULTS

5.1. First Study: Suicidal behavior in men and women users of illicit drugs recruited in drug treatment facilities

Sample and Analyses

From the total sample of 514 illicit drug users, only 511 participants reported information about suicidal Ideation and Plans (IP). Suicidal IP subjects' characteristics were analyzed separately by sex. Basic descriptive analyses were done and variables associated with the outcome with p values less than 0.20 in the bivariate analyses were included in the Poisson regressions and progressively withdrawn in a backward procedure. Psychoactive substance use variables were not included in the model as subjects were under different treatment experiences and drugs would refer to different time periods. The separate models for men and women were adjusted by age and socio-demographic variables that had been found relevant in either men or women (age, municipality, level of education, employment status, and marital status). When in a given variable there were more than 15 missing answers, a new category was created in order to avoid losing these cases from the analysis. Potential confounders and interactions were tested. Statistical significance was set at $p<0.05$.

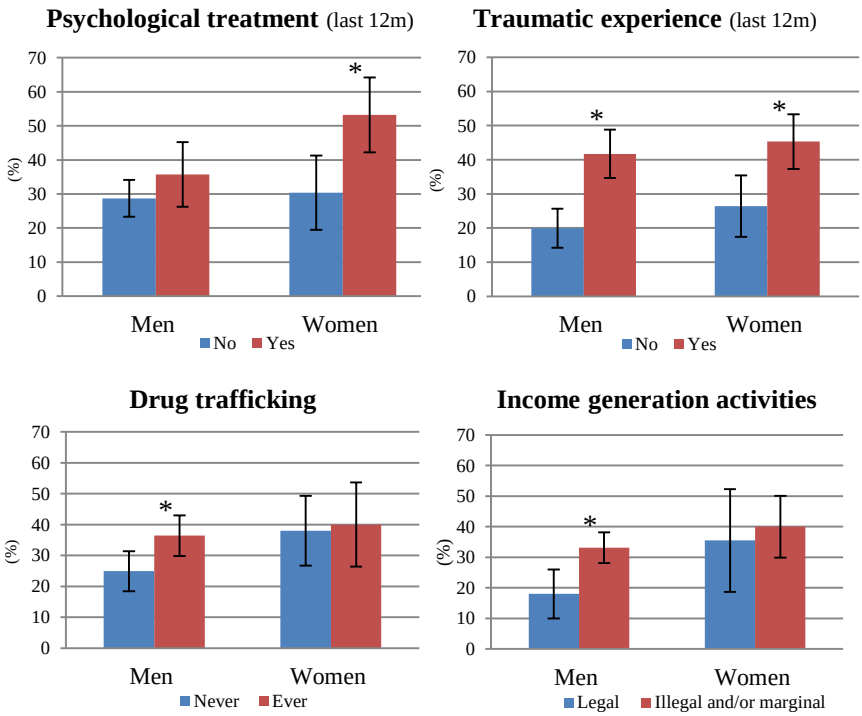
Main results

Suicidal IP was present in 30.8% of men (95% CI: 26%-35%) and 38.8% of women (95% CI: 30%-47%), the proportion overall being 32.7% (95% CI: 28%-36%). Although higher presence of both ideation and plans was found for women, no statistically significant differences were observed

(p=0.10). Plans were less frequent than ideation, 52.0% of people with an ideation reported plans; only two persons reported just plans.

No significant differences for suicidal IP were found in the age distribution or in other sociodemographic variables in either men or women, except for level of education and employment status in men. None of the drug use patterns analyzed showed increased risk of suicidal IP. However the prevalence of women reporting suicidal IP was higher among those who had been in psychological treatment last 12 months (53.2% vs 30.4% in women not in psychological treatment). The prevalence of suicidal IP was higher among both men and women reporting recent violent traumatic experience. In relation to involvement in the illegal drug market, suicidal IP was significantly more common for men who trafficked (36.5%), and those who declared illegal and/or marginal IGA (33.1%) (Figure 5.1:1).

Figure 5.1:1. Presence of Suicide IP according to different factors



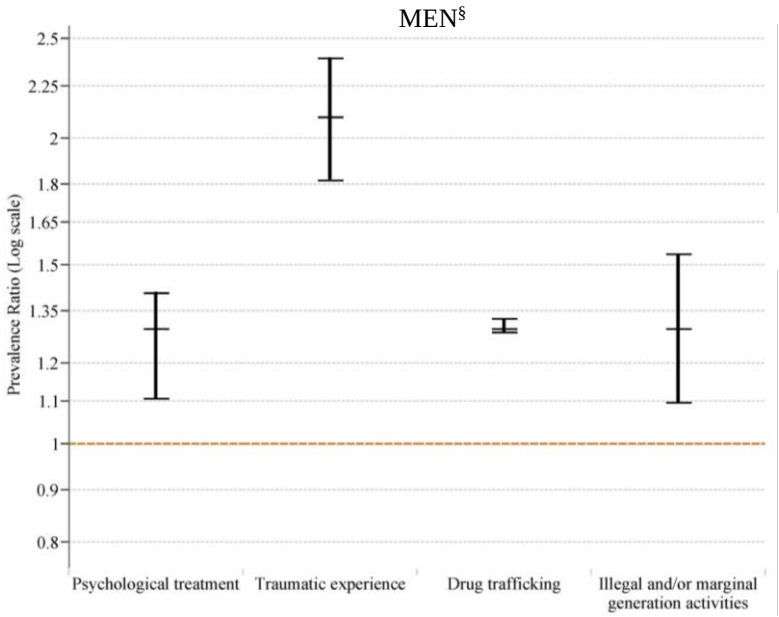
*p<0.05

Although more than half of the women with a prison history presented suicidal IP (51.4%), the association was marginally not significant.

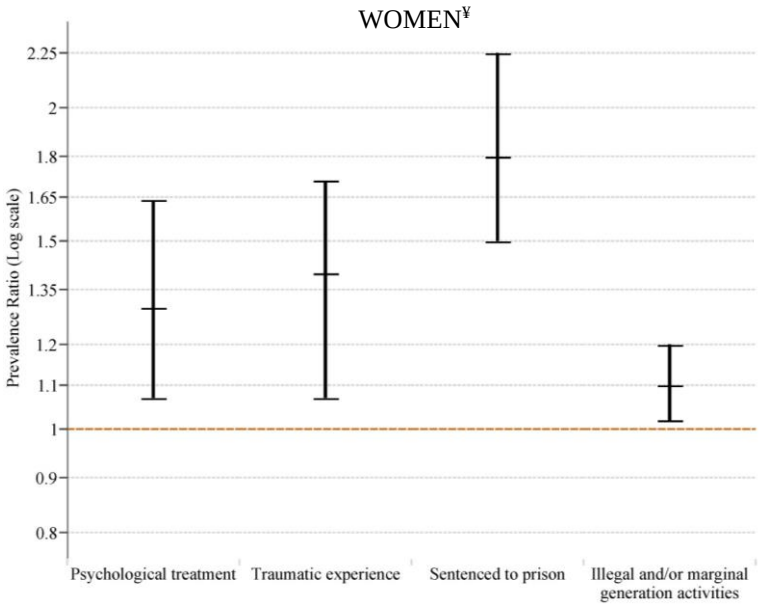
Multivariate analysis

Results of the multiple Poisson regression analyses are shown in **Error! Reference source not found.**. The model for men showed that individuals who had received psychological treatment (PR=1.3; 95% CI:1.11-1.41), suffered a recent traumatic experience (PR=2.1; 95% CI:1.82-2.40), had been involved in drug trafficking (PR=1.3; 95% CI:1.29-1.33), and those who reported illegal and/or marginal IGA (PR=1.3; 95% CI:1.10-1.54) were more likely to present suicidal IP. For women, the variables associated with higher probability of suicidal IP were psychological treatment (PR=1.3; 95% CI:1.07-1.64), recent traumatic experience (PR=1.4; 95% CI:1.07-1.71), ever sentenced to prison (PR=1.8; 95% CI:1.50-2.25) and illegal and or marginal IGA (PR=1.1; 95% CI:1.02-1.20).

Figure 5.1:2. Multiple Poisson regression models exploring factors associated with last 12 months suicidal Ideation/Plan by gender.



PR-



PR-

§ Model adjusted by age, country of origin, municipality, level of education, employment status and sentenced to prison.

¥ Model adjusted by age, country of origin, municipality, level of education, employment status and drug trafficking.

5.2. <u>Second Study:</u> Interpersonal violence among illicit drug users recruited in drug treatment facilities

Sample and Analyses

From the total sample of 514 illicit drug users from drug treatment facilities, 502 participants reported information about violence, involving either victimization and/or offending. Analyses were performed by gender, separately for violence received (VICTIM) and violence perpetrated (OFFENDER). Descriptive information and comparisons were done. All variables with a p-value less than 0.20 in the descriptive analyses were included in a Poisson regression model and then removed using a stepwise backward procedure until the model had only significant variables ($p<0.05$). Psychoactive substance use variables were not included in the model due to the fact that reported drug consumption would refer to different time periods, as subjects recruited in different centers would have had different treatment schedules. A total of four models, two for victim (men and women) and two for offender were fitted, adjusting for age and statistically significant socio-demographic variables (see table footnotes).

Finally, in order to assess the victim-offender overlap, the resulting models for victim were further adjusted by offender status, and vice versa, the offender model by victim status. Potential confounders and interactions were tested.

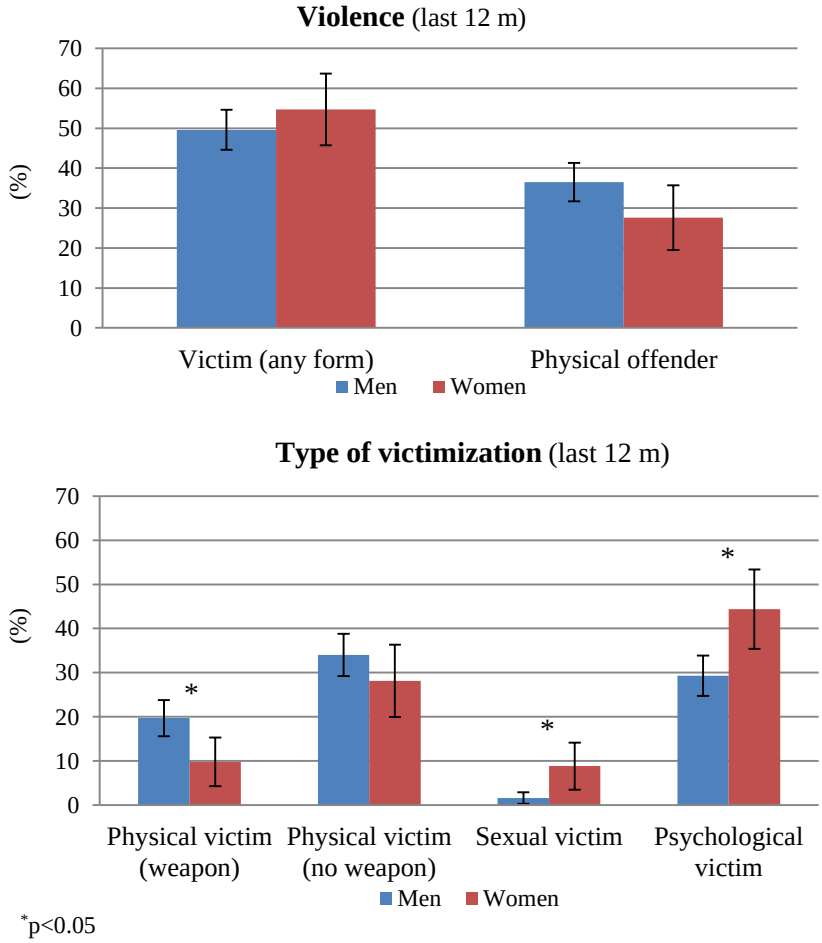
Main results

Main results - Prevalence of different forms of violence

The last 12-month prevalence of being a victim was 50.8% (49.6% for men vs 54.7% for women) and of being an offender 34.4% (36.5% for men vs 27.6% for women). Although women more often reported being victims

and men more frequently reported being offenders, differences were not statistically significant. Experiencing a physical attack (without weapon) or psychological abuse was more common (around 33% each) than experiencing physical attack with a weapon (17.4%) or sexual abuse (3.5%). A higher proportion of men reported victimization from physical attack (with and without weapon), while a higher proportion of women reported sexual and psychological abuse. Gender differences were significant for all forms of violence, except for physical attack without weapon (Figure 5.2:1).

Figure 5.2:1 Violence and type of victimization in illicit drug users in the last 12 months, by gender



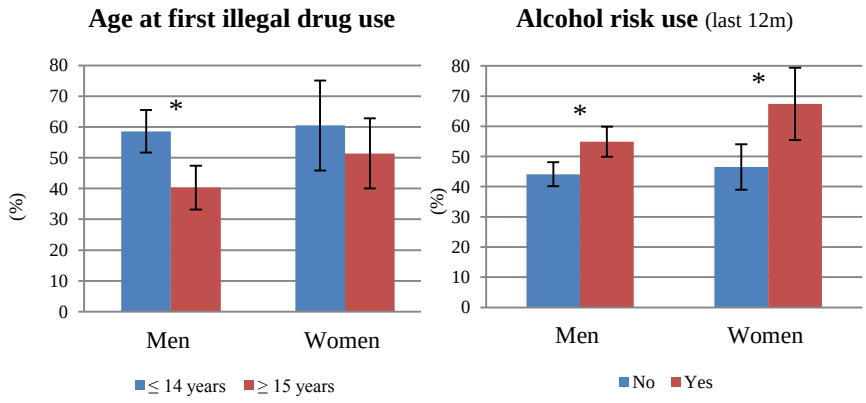
*p<0.05

Main results - Victim analyses

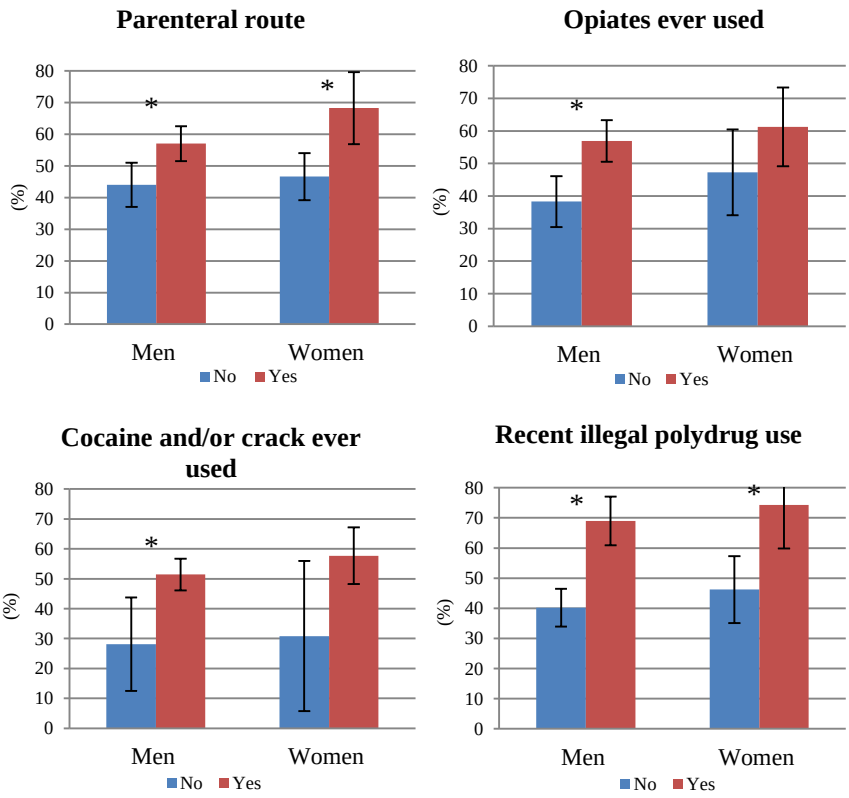
The only socio-demographic variables significantly associated with 'victim' were employment status and residence in men. All drug use patterns were associated with victim status in men while for women the associated variables were alcohol risk use, parenteral route, and recent illegal polydrug use (Figure 5.2:2). Also, all crime and market variables were statistically significant for men while for women only IGA (Figure 5.2:3).

Multivariate results for men showed higher PR of victim for early illegal drug use (≤14 years) (PR=1.3; 95%CI:1.1-1.4), alcohol risk use (PR=1.2;95%CI:1.1-1.4), recent illegal polydrug use (PR=1.5; 95%CI:1.1-2.0), ever sentenced to prison (PR=1.3;95%CI:1.2-1.5) and involved in illegal and/or marginal IGA (PR=1.3; 95%CI:1.1-1.5). For women, higher PR of victimization was associated with alcohol risk use (PR=1.5; 95%CI:1.3-1.7), parenteral route (PR=1.5; 95%CI:1.1-1.7) and illegal and/or marginal IGA (PR=1.4;95%CI:1.2-1.6) (Figure 5.2:4).

Figure 5.2:2. Presence of victimization according to drug use patterns



* p<0.05


Parenteral route
Opiates ever used
Cocaine and/or crack ever used
Recent illegal polydrug use
(%)
80
70
60
50
40
30
20
10
0
*
Men
Women
No
Yes

* p<0.05

Figure 5.2:3. Presence of victimization (any form) according to different contextual factors

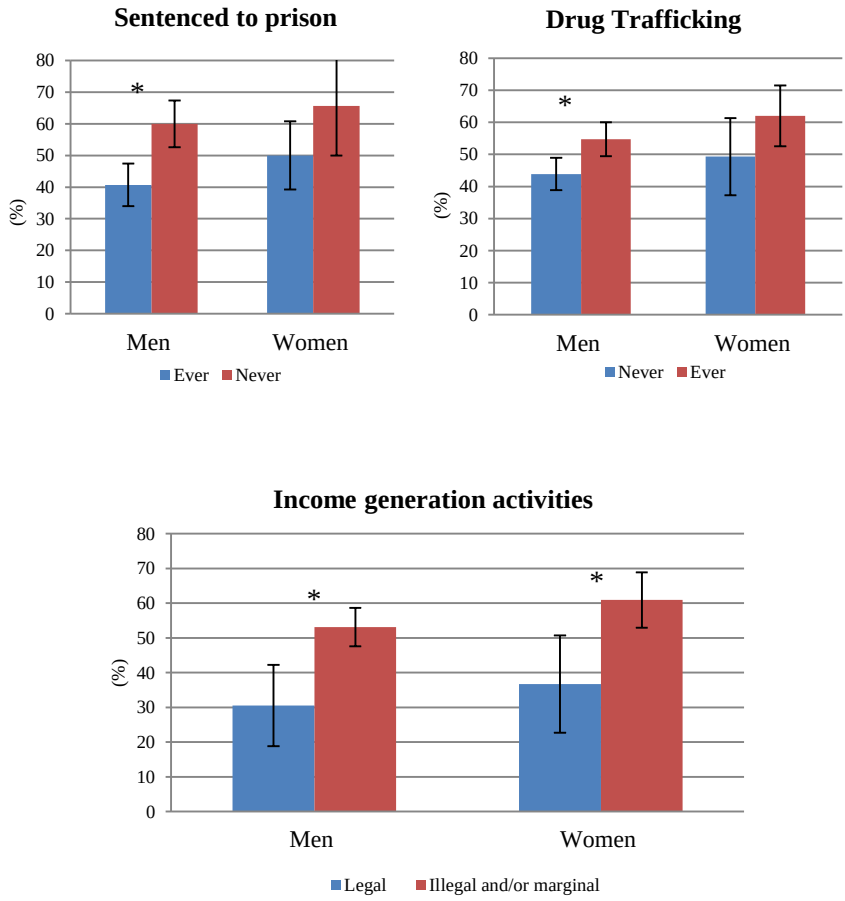
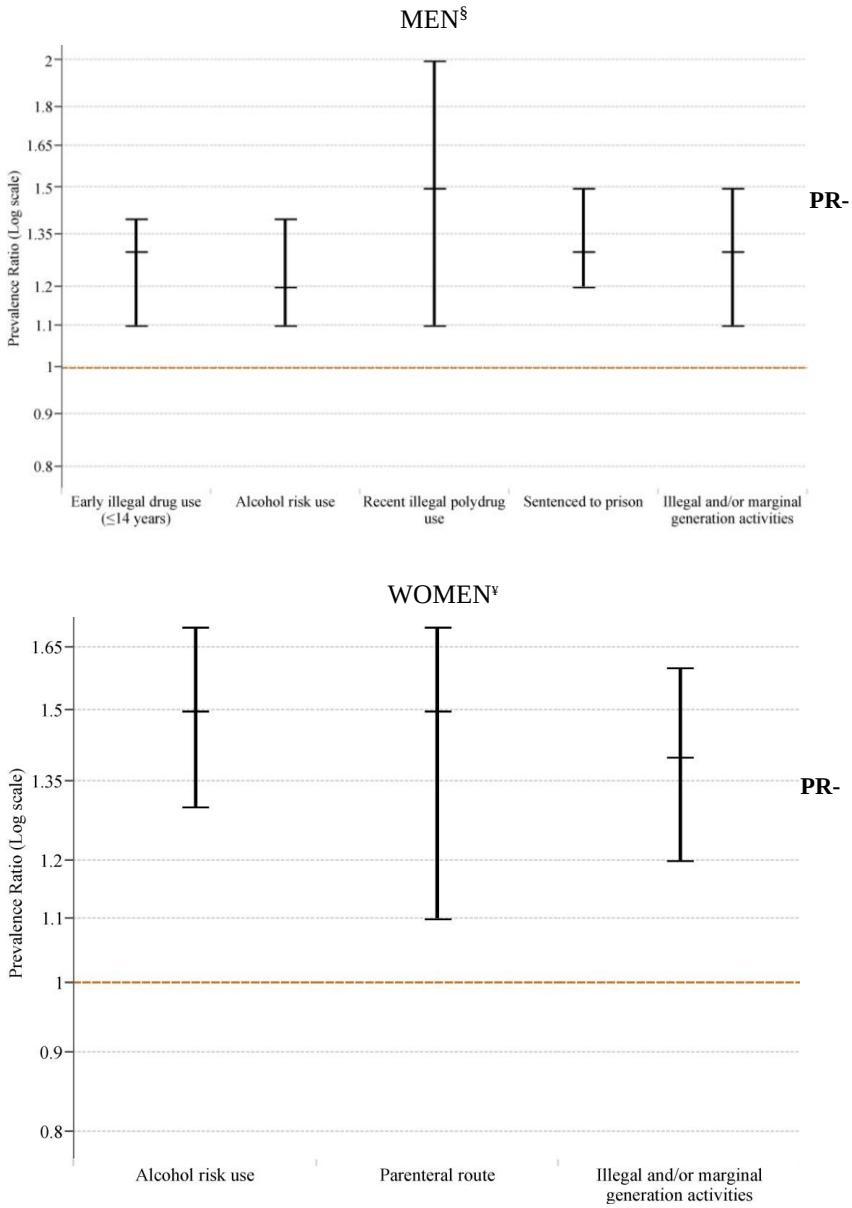


Figure 5.2:4. Poisson regression models exploring factors associated with victimization in the last 12 months



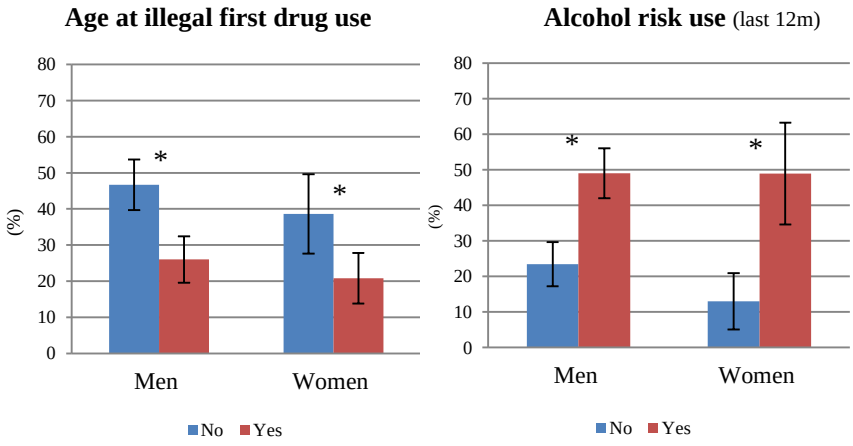
§Model adjusted by age and country of birth.

¥Model adjusted by age and level of education.

Main results - Offender analyses

Younger adults (≤35 years), both men and women, reported higher prevalence of offending (43.1% for men and 38.3% for women) than older participants. Other socio-demographic variables significantly associated with 'offender' were employment status and residence in men. For both genders, offending was significantly more common amongst those who started drug use early (≤14 years) (46.7% for men and 38.6% for women), were alcohol risk users (49.0% for men and 48.9% for women) or illegal polydrug users (56.3% for men and 42.9% for women); also men using parenteral route and opiates more frequently reported being an offender (Figure 5.2:5). Offending was more common in men when they had been involved in crime (45.5% of those ever sentenced to prison, 44.5% of those involved in Drug trafficking and 40.8% in marginal IGA), while women who had been involved in drug trafficking were more likely to report offending (38.8%) (Figure 5.2:6).

Figure 5.2:5. Presence of physical offending according to drug use patterns



*p<0.05

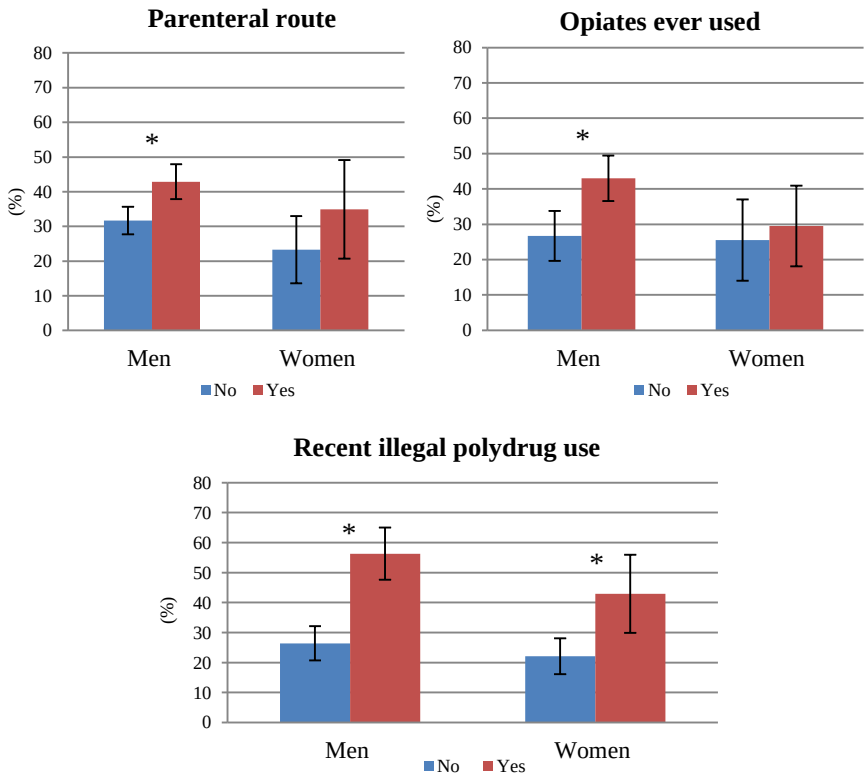
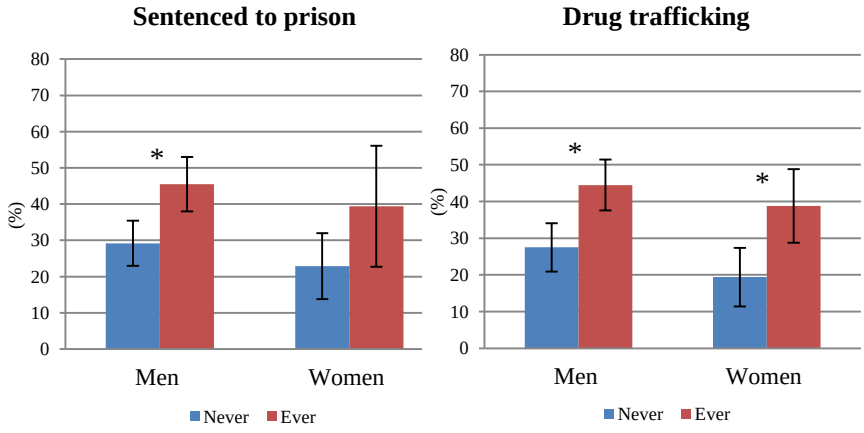
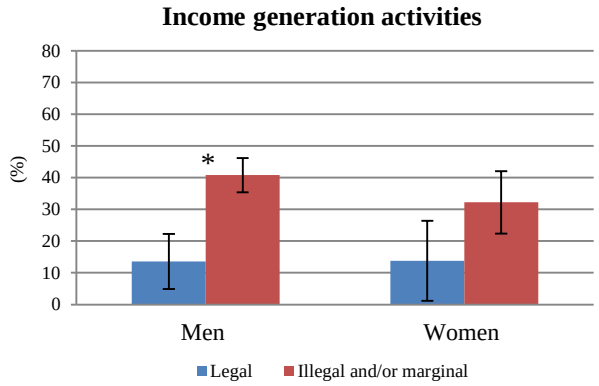


Figure 5.2:6. Presence of physical offending according to contextual factors

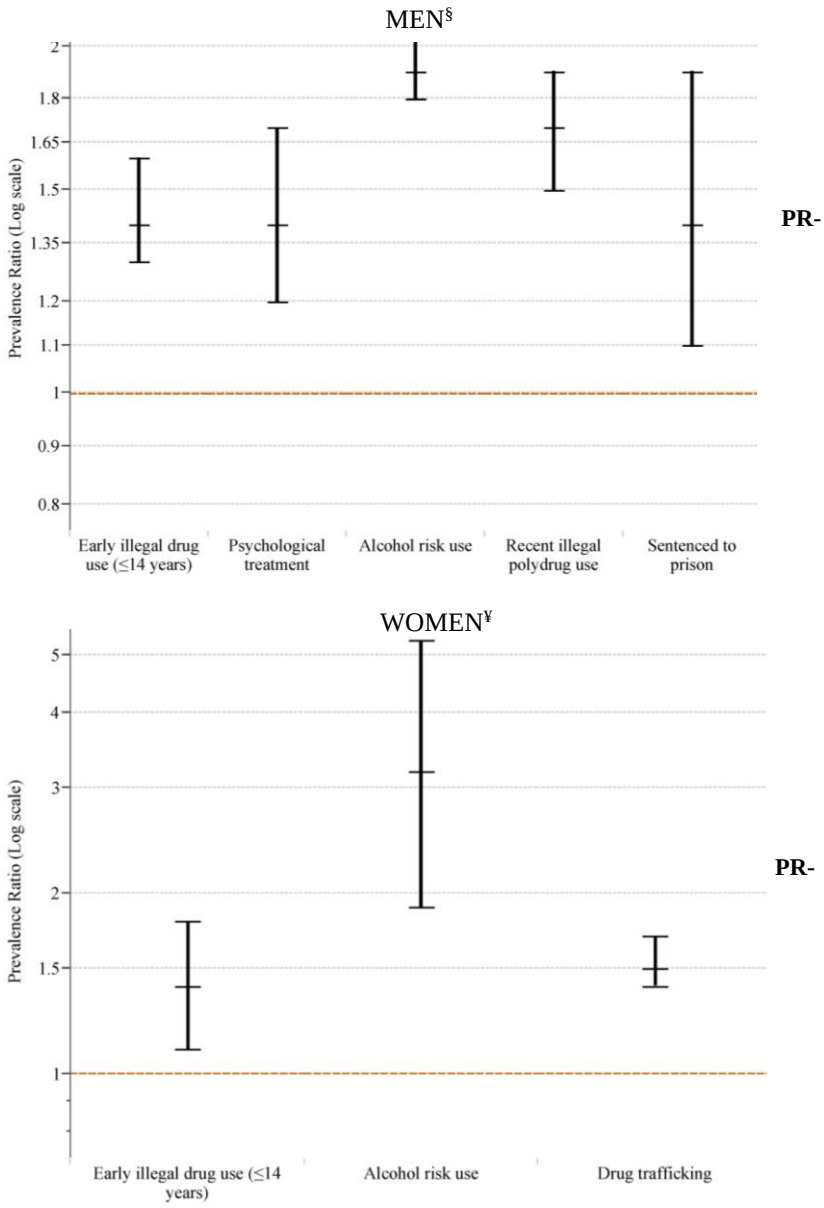


*p<0.05



Multivariate results for offender status are shown in Figure 5.2:7. Men starting illegal drug use early (≤14 years old) (PR=1.4; 95%CI:1.3-1.6), reporting psychological treatment (PR=1.4; 95%CI:1.2-1.7), alcohol risk use (PR=1.9; 95%CI:1.8-2.1), those who were recent illegal polydrug users (PR=1.7; 95%CI:1.5-1.9), had been sentenced to prison (PR=1.4; 95%CI:1.1-1.9), and involved in illegal and/or marginal IGA (PR=2.0; 95%CI:1.3- 3.2) were more likely to be offenders. For women, those more likely to have been offenders were those reporting early illegal drug use (≤14 years) (PR=1.4; 95%CI:1.1-1.8), alcohol risk use (PR=3.2; 95%CI:1.9- 5.3), having been involved in drug trafficking (PR=1.5; 95%CI:1.4-1.7) and illegal and/or marginal IGA (PR=2.1; 95%CI:1.8-2.3).

Figure 5.2:7. Poisson regression models exploring factors associated with physical offending in the last 12 months



PR-

PR-

§,¥ Models adjusted by age.

Main results – Victim & Offender overlap

Of the studied sample, 12 participants didn't answer either victim or offender questions, leaving our analyses of victim-offender overlap with 375 men and 115 women. Considering both men and women, 132 of the 245 victims also reported being offenders (53.9%); this relation differed by gender (n=107/183, 58.5% of men and n=25/62, 40.2% of women) ($p<0.02$). Conversely, the great majority of those reporting being offenders (n=166) also reported having been victims (n=132, 79.5%) with no differences by gender (men n=107/135, 79.3% and women n=25/31, 80.6%).

When the variable offender was included in the victim models (for each gender), the PR of being a victim for a male offender (vs non offender) was PR=2.1(95%CI: 2.0-2.3) and for a female offender PR=1.6 (95%CI:1.4-1.8). Alcohol risk use lost significance for the association with being a victim. The rest of variables remained significant except for use of parenteral route among women.

The PR of being an offender for those subjects who reported having been victims was three times higher (PR=3.0; 95%CI:2.2-3.9) in men and twice as high (PR=2.3; 95%CI:2.0-2.7) in women, compared to those who did not report a history of victimization. Variables that ceased to be significant were having been sentenced to prison for men and early illegal drug use for women.

5.3. Third Study: Coverage of overdose prevention programs for opiate users and injectors: a cross-sectional study

Arribas-Ibar E, Sánchez-Niubò A, Majó X, Domingo-Salvany A, Brugal MT. Coverage of overdose prevention programs for opiate users and injectors: a cross-sectional study. Harm Reduction Journal. 2014;11:33. doi:10.1186/1477-7517-11-33.

Sample and Analyses

From a sample of 514 illicit drug users from drug treatment facilities, 306 opiate (i.e. heroin, methadone) users and/or injectors, who reported information about OPPs were selected. Of these, 68.3% were opiate users and injectors, 28.4% were only opiate users, and 3.3% only injectors.

For the studied sample, the coverage of OPPs was calculated by recruitment center, region or province, and municipalities, as the proportion of subjects who declared having participated in an OPP. Poisson regression models with robust variance were used to analyze associations of OPP attendance and the other variables via prevalence ratios (PR), adjusted by sex and age (Coutinho et al., 2008). Analyses consisted of two steps. Firstly, we used distinct Poisson regressions (bivariate) for each variable, taking non-attendance in OPP as the reference category. Later, those variables with p-value <0.2 were included in a multiple Poisson regression. The final model was fitted using a backward procedure. Statistical significance was set at p-value <0.05.

Main results

One hundred thirty-three study participants had participated in some OPPs (43.5%; 95% CI: 37%-49%). No significant differences were found in the distribution of OPP participation by either sex (men 44.6% vs women 39%)

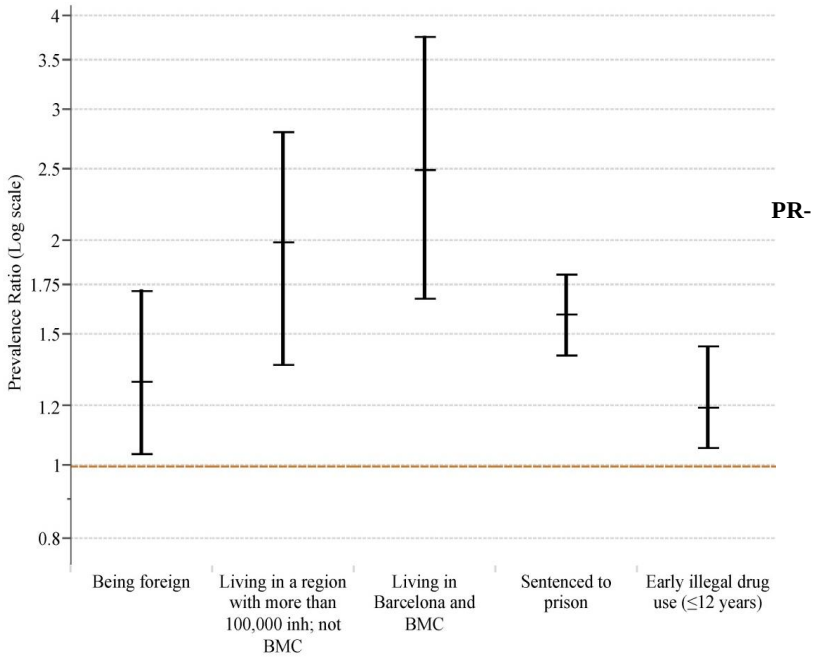
or age (mean age of OPP participants: 39.4 years s.d.: 7.1); 66.7% of participants recruited in HRF had attended an OPP, while only around one third of individuals recruited in OTC and ThC had done so. OPP coverage by geographical area shows that people living in Barcelona city or Barcelona metropolitan conurbation (BMC) had the highest participation (52.3%). Related to time of attendance, 63.4% had attended within the last 2 years, 19.1% between 2-5 years ago, and 17.6% more than 5 years ago. Among OPP participants, 131 reported where they had received training, 60% did so in HRF, 24.4% in OTC, 19% in prisons, and 16% in ThC (note that they could have reported attending an OPP several times).

Regarding the associations in the bivariate analyses, between OPP participation and other individual variables, socio-demographic characteristics found to be significantly associated with OPP attendance were: being a foreigner (PR= 1.5; 95% CI: 1.12–2.03); municipality, as residents from Barcelona and towns of more than 100,000 inhabitants had a higher participation; employment status as individuals with permanent disability or receiving a pension were more likely to have attended an OPP and also prison as persons who had ever been sentenced to prison declared a higher participation. Regarding drug use-related variables, we found that participants aged 12 years or under when they first used drugs were more likely to have enrolled in OPP (PR= 1.4; 95% CI: 1.19–1.75).

The multiple Poisson regression analysis showed that being a foreigner was associated with a greater chance of OPP participation (PR= 1.3; 95% CI: 1.04–1.72), as was residing in a town with more than 100,000 inhabitants (PR= 2.0; 95% CI: 1.37–2.81) or the Barcelona conurbation (PR= 2.5; 95% CI: 1.68–3.77); also, individuals ever sentenced to prison were more likely to have participated in OPP (PR= 1.6; 95% CI: 1.41–1.81), as were subjects

whose first drug use was when they were 12 years old or under (PR= 1.2; 95% CI: 1.06–1.45) (Figure 5.3:1).

Figure 5.3:1. Poisson regression models exploring factors associated with participation in an overdose prevention program (OPPs)



Model adjusted by age, sex, municipality, level of education, employment status, and marital status.

6. DISCUSSION

Based on the gaps in illegal drug use knowledge studied in this dissertation, this part focuses on discussing the main findings, first about suicidal behaviors and violence, starting with characterization of these two health-related problems from an epidemiological viewpoint, and finally discussing the health and social care response through analyzing the overdose prevention programs coverage.

Prevalence of health related consequences

Suicidal behaviors

One third of illicit drug users from drug treatment facilities presented suicidal ideation and/or plans, without gender differences. This prevalence was higher than in the general population (ideations [3-4%] and plans [≤1%] (Scocco et al. 2008; Crosby et al. 2011) and within the range found among subjects with mental disorders (Henriksson et al. 1993; Beautrais et al. 1996; Nock et al. 2010). Among substance-user populations, this prevalence may vary according to recruitment sample, for instance in community samples, 23.4% of drug users reported suicidal ideation and 7.9% plans (O'Neill et al. 2014) and in another sample, cocaine and heroin users showed a prevalence of 27% of suicidal ideations (Havens et al. 2006), slightly lower than in the present study. While, studies in drug treatment facilities found that heroin users had a lifetime prevalence of 40% of suicidal ideation (Darke and Ross 2001) and, among other substance users (psychotropic drugs, marijuana, and narcotic agents), 41% reported planned suicide with ideation (Kwon et al. 2013).

Prevalence did not differ statistically by gender even though women presented a slightly higher prevalence than men. As in our case, no gender

differences in suicidal ideations were found in the study by Havens et al. (Havens et al. 2006), while Rossow and Lauritzen found gender differences in ideation (Rossow and Lauritzen 2001), as did Darke among patients in methadone treatment, females reporting more suicide attempts than males (Darke and Ross 2001).

Violence

Exposure to violence in the last 12 months was high; half of our subjects reported being victims and around one third reported being offenders. As this study includes various forms of victimization (physical, psychological or sexual) and physical offending, this needs to be taken into account when comparing with other studies. The prevalence of reported violence in the general population is much lower than in the studied population. In general population samples, prevalence of violence in the previous 12 months was 3.0% in women and 3.9% in men (Tjaden and Thoennes 2000) and in another sample 1.1% of the population experienced at least one violent victimization (Lauritsen and Rezey 2013). However, prevalence results from studies on drug treatment facilities were similar. Figures from an emergency department study approached those of the present study, 40.7% of injured patients, presenting consumption of alcohol or illicit substances, reported having been victims of sexual abuse, violence with a weapon, pushing, etc. and 35.6% having been offenders (Cunningham et al. 2003). See also Table B.3:1.

Although the prevalence of being a victim was higher for women and offender for men, the differences were not significant. As in Darke et al. (Darke et al. 2010) no gender differences were found for victimization and offending in this study. Gender differences have only been found in relation to the different forms of violence. Psychological and sexual abuse were more frequently reported among women and physical assault involving a

weapon was more frequently reported by men. In line with this, findings from the National Intimate Partner and Sexual Violence Survey (NISVS) found that women were more likely to be victims of expressive aggression (40% vs 32% of men) considering verbal abuse or emotional violence in response to some agitating or aggravating circumstance (Black et al. 2011). Also, as males are usually more involved in criminal behavior and in illegal drug market activities (Chermack et al. 2000; Rodriguez and Griffin 2005), it is not surprising that violence with weapon was more frequent among males in our study.

Drug abuse related factors associated with suicidal behaviors and violence

Suicidal behaviors

Suicidal ideation and plan were associated with suffering a violent traumatic experience, recent psychological treatment and previous involvement in marginal income generation activities for both genders, while having been sentenced to prison was associated with suicidal ideation and plan only among women and involvement in trafficking only among men.

Illicit drug users are prone to experience trauma related to drug use-related violence (Freeman and Fallot 1997; Najavits and Weiss 1997; Alverson and Alverson 2000; SAMSHA/CSAT 2000; Carlson 2005; SAMSHA 2014), and in our study, having had traumatic experiences as a result of physical, psychological and/or sexual aggression, in the same period as suicidal ideation and plans, was clearly associated with them for both sexes. Other studies which have assessed similar traumatic experiences over different periods, such as childhood or lifetime, reported similar results globally, also among drug users in treatment (Kwon et al. 2013). In fact, Kwon's study

(Kwon et al. 2013) found that subjects with experiences of emotional abuse, such as verbal abuse, reported more instances of suicidal ideation. Also Rossow and Lauritzen reported an elevated prevalence of suicidal behavior and ideation among drug addicts (42% in the previous month), which increased with the number of areas of childhood adversities (Rossow and Lauritzen 2001).

As in previous studies, men in the sample were more active in illegal drug market activities than women (Darke and Ross, 2001; UNODC 2013). Additionally, men engaging in Drug trafficking were more likely to present suicidal ideation and plan, which was not the case for women. Even though a considerable number of women reported illegal drug trafficking, and in a context of illegal drug consumption drug trafficking and marginal income generation activities are closely related, only being involved in marginal income generation activities (sex work, stealing, peddling, begging etc.) was independently associated with suicidal ideation and plans for both genders. On the contrary, having been in prison was independently associated with suicidal ideation and plans only in women. This finding would be in accordance with the fact that prisoners have higher rates of suicidal behaviors than the general population (EMCDDA 2012), and it has been reported that women recently released from prison were 36 times more likely to die by suicide within one year of their release, while the figure was lower (8.3 times) for men (Pratt et al. 2010).

Violence

For both genders, illegal and/or marginal income generation activities were associated with victim and offender status. Victimization was more likely in men with early illegal drug consumption, illegal polydrug use and prison history, whereas among women it was only more likely for those who had used parenteral route. Regarding offending, it was higher in men who had

sought psychological treatment, those who reported early drug consumption, illegal polydrug use and for those sentenced to prison, and for women reporting early drug consumption and illegal drug trafficking. The great majority of offenders had also been victims and only half of victims were offenders. Alcohol risk use was mainly associated with offender status.

The evidence shows that the need to obtain money to purchase drugs in unfavorable social contexts induces many users to engage in illegal and/or marginal activities (Goldstein 1985; Kuhns 2005; Carpentier 2007; Richardson et al. 2015). While involvement in the drug market is greater in men (Anderson 2001) and is probably related to a higher drug consumption (OAS, 1997), in our study only women involved in Drug trafficking were more likely to be offenders, though not victims. In contrast, only men sentenced to prison (for criminal and drug activities) were more likely to be both, victim and offender.

The victim-offender overlap was very high in this sample of illicit drug users for both men and women, as also found by Darke et al. (Darke et al. 2010). Noticeably, the overlap was higher for offenders, men and women, who also reported being victims; while the proportion of victims reporting physical perpetration was lower and differed by gender (higher in men). This finding is not unexpected due to the fact that offender referred only to physical violence, while subjects could also be victims of sexual or psychological violence. Note that violence reported by women victims was more frequently sexual and psychological. As reported in the general population (Shäffer 2004), when only physical violence was assessed (data not shown), there were no gender differences in the probability of a victim becoming offender and vice versa. Another important point to note is the confounding role of alcohol risk use in the association of alcohol with being

a victim in the overlap models. In our study risk alcohol use was associated with both offenders and victims; however, when the victim model was adjusted with the variable 'offender', the association with alcohol disappeared. Although certain studies assessing only the relation between alcohol use and being a victim found associations between them (Testa and Hoffman 2012; Strunin et al. 2015), our results are consistent with other studies mentioning alcohol as the substance most frequently related to aggressive and violent behaviors (Bushman and Cooper 1990; Crane 2006; Testa and Derrick 2014).

Analyzing the health and social care response: OPP coverage.

In the present study estimated mean coverage was above 40%, considered high by WHO, UNODC and UNAIDS Technical Guide for clients of harm reduction programs receiving Information, Education and Communication (WHO, UNODC and AIDS 2009). To our knowledge no other studies have investigated the coverage of overdose prevention programs in a given geographical area. Coverage of other harm reduction strategies in Spain was ascertained by Barrio et al, concluding that implementation of such strategies arrived too late (Barrio et al. 2012). OPP could not be examined at that point but, as in Catalonia, their systematic implementation did not begin until 2009, we can affirm that they also arrived late. Nevertheless, in this study we found that some non-systematic provision of such programs took place in our region before 2009. In this respect we would like to emphasize the importance of systematic implementation of these programs as almost two thirds (63%) of the study participants had received OPP training in the years when it was systematic. In 2009 the programs were regulated in terms of education materials (e.g.: videos) and professional training; however data from the present study reflects the

progressive incorporation of HRF, ThC and OTC; participation being high only in HRF.

OPP coverage by regions and municipalities was unequal, being higher in large cities, not only Barcelona city and Conurbation. As in other places (WHO 2004), the higher concentration of drug users in large urban areas prompted the setting up of these preventive interventions there. In Catalonia, HRF, where implementation of OPP started, are mainly located in large metropolitan areas which may be considered coherent with the perceived need of OPP there, as such facilities take care of users currently using the drug. Nevertheless, such interventions should also be offered in OTC, ThC and prisons in order to prevent, and provide the skills to assist unexpected overdoses when resuming after a period of abstinence (Davoli et al. 2007; Hakansson and Berglund 2013).

OPP are considered an important support tool for overdose prevention policies, which aim at reducing or avoiding deaths or health consequences. Previous studies have looked at the effectiveness of OPP, evaluating knowledge, skills learned, and drug prescription among attendants (Dettmer et al. 2001; Piper et al. 2007; Green et al. 2008; Wagner et al. 2010; Bennett et al. 2011; Frisher et al. 2012). The satisfaction of participants in OPP has been also assessed in some studies, finding them enthusiastic about these training programs (Marchand et al. 2011) and that they feel grateful for and comfortable using the skills and tools acquired (Seal et al. 2003; Sarasa-Renedo et al. 2014).

In Catalonia, between 2009 and 2011, a total of 2,681 drug users participated in OPPs. It is interesting to note that in this study, people born abroad, those with a prison history, and those who initiated consumption early (aged under 13) reported more participation in OPP. Nearly half of the OPP participants in this study were recruited in HRF, and although

recruitment center was controlled for in the regression analysis, participants characteristics are more similar to clients from HRF. Taking into account that HRF started OPP earlier, they are located in large cities, and most of them are open all day, such results were not unexpected. HRFs may be the first point of contact with health care centers and treatment for people born abroad (Antón and Muñoz De Bustillo 2010; Saigí et al. 2014). They may also be relevant for released prison inmates who learnt about the importance of harm reduction strategies while in prison (Huang et al. 2011; Binswanger et al. 2013; Hakansson and Berglund 2013). As a whole, according to these results, so far OPP have mainly focused on the needs of the most socially excluded, attracted by HRF, than on those of individuals having more theoretical risk (for example, drug users in OTC). Unfortunately, in our region there has been no evaluation of how many overdoses may have been prevented after OPP implementation.

Limitations

The limitations affecting these studies have been discussed in depth in each of the articles (see Annex 1), and here we will only list the main drawbacks encountered. Some of these limitations derive from the source of information and are common to all studies, while others are particular to the methodology used.

Limitations affecting all studies:

- Cross-sectional design doesn't permit drawing conclusions about the causality or directionality of the associations.
- Small sample may preclude assessing associations with some variables.

- Recruitment was done among illicit drug users in health centers, thus results can at most represent drug users in healthcare facilities and may not be generalizable to the non-treatment-seeking population.
- Self-report relies on the memory of the respondents and can also be influenced by social desirability.

First study: "Suicidal behavior in men and women users of illicit drugs recruited in drug treatment facilities"

- The frequency and intensity of studied suicidal behaviors was not evaluated, nor was the presence of any non-fatal suicide attempt.
- Presence of mental disorders was not assessed: however psychological treatment with the same reference period as suicidal IP was assessed and could be considered as a proxy of mental disorders; it might also indicate a previous non-fatal suicide problem.
- Substances used by subjects in the study were not considered in the multivariate analyses because some of them might not be consuming in the period considered for assessing suicide IP (last 12 months) due to being in therapeutic communities or in substitution treatment.

Second study: "Interpersonal violence among illicit drug users recruited in drug treatment facilities"

- All victimization forms were analyzed together enabling a more robust analysis by increasing the sample size. However, as victimization patterns differ by gender and a single person can have suffered several forms of violence, particular aspects may be blurred.
- History of prior victimization or perpetration was not considered, only exposure to violence in the last 12 months.
- Prevalence estimates of violence would be underestimated because some specific forms (e.g.: psychological abuse) can present differences in the sensitivity or interpretation.

- Substances used by subjects in the study were not considered in the multivariate analyses because some of them might not be consuming in the period considered for assessing violence (last 12 months) due to being in therapeutic communities or in substitution treatment.

Third study: "Coverage of Overdose Prevention Programs for opiate users and injectors: a cross-sectional study"

- Injectors not reporting opiate use were also considered target population because intravenous illegal drug use in Catalonia is strongly associated with heroin use.
- The resulting sample might be too small to assess coverage precisely or to ascertain the association of some variables.

The goal of this dissertation has been to offer new insight about important health-related aspects, such as suicidal behaviors and violence-crime, for illicit drug users in Spain. Context is an important determinant of many problematic behaviors; in the case of illegal drug users, the illegality of their actions is a key factor that makes them more prone to these problems. Suicidal behaviors and violence are strongly associated, and fortunately, both are preventable with specific actions and interventions.

This dissertation has also contributed to the evaluation of overdose prevention programs, expanding knowledge on coverage in the Catalan region, as well as the profile of the population using these services. Monitoring and evaluation of services is extremely important for guaranteeing quality health care and assessing health policies.

7. CONCLUSIONS

1. The prevalence of suicidal ideation and/or plans among men and women using illicit drugs was high, especially among both men and women reporting traumatic experiences, those involved in marginal income generation activities, and those who had been in psychological treatment.
2. Independently of the illegal substance taken, suicide risk ought to be assessed in drug treatment facilities, and effective suicide prevention strategies should be addressed to illicit drug users in treatment.
3. An elevated prevalence of violence was found among illicit drug users, both male and female, especially in those involved in crime and illegal market activities. Alcohol risk use was also associated with violence, particularly with being an offender.
4. Violence should be assessed in drug treatment facilities to reduce its consequences (suicidal behaviors among them), and development of prevention strategies to empower self-care against violence should be promoted.
5. These results create awareness in order to help develop public policies to minimize exposure to violence among subjects involved in illegal substance use.
6. The overall coverage of overdose prevention programs is considered high, although less densely populated areas have medium-poor coverage.
7. New strategies would need to be developed to attract the target population by offering more overdose prevention programs in services and in the regions where participation is poor; to study why Spaniards have lower involvement in these programs is also needed.

8. FUTURE RESEARCH AND IMPLICATIONS FOR PUBLIC HEALTH

Research Approach

The initially stated overarching aim of this dissertation was to identify the drug-scene contextual factors that are regularly associated with suicidal behaviors and violence. Recognizing the contribution of our findings in this field, further research on suicide and drug-scene context should be done. Qualitative research might be an initial step to complement the study in order to identify certain aspects, which are based on the perceptions and thoughts of drug users, that cannot be identified through a quantitative approach. Also, it will be important to identify the principal aggressors of illicit drug users, the reasons for their violence and factors predisposing to suicide among illicit drug users.

Finally, it would also be necessary to assess interventions and protocols to screen for and manage trauma experiences and suicidal behaviors within violent environments.

Public Health Approach

Regarding the application of these findings from a public health perspective, different actions ought to be considered in order to guarantee the integrity of the illicit drug users and the well-being of the community.

Suicide and violence are considered serious public health problems worldwide and they impact on the most marginalized and discriminated groups of society. On one hand, national suicide prevention strategies need to better recognize illicit drug users as a vulnerable group. Drug use is tackled as risk factor for suicide, as well as for violence, but there are no

specific indications for people with substance use disorders in drug treatment facilities nor in primary care.

A comprehensive approach to improve health outcomes in this group must include efforts to detect suicidal behaviors and previous violence at the first drug treatment admission and, in the case of screening positive, to assess the associated risk factors and provide treatment.

Specific suicide prevention training should be a priority for health professionals in drug treatment facilities, as well as how to follow up suicide attempts and provide support.

Sensitize and inform young persons, parents, communities, and teachers regarding mental health conditions. Stigma plays a key role in the resistance to change and implementation of suicide prevention responses, prioritizing preventive interventions among vulnerable populations, such as people who made a previous attempt.

A current line of thinking in the public health approach emphasizes the need to coordinate and integrate strategies for health involving multiple sectors in order to achieve effective policies to improve public health. Apart from the main pillars for drug developing policies (prevention, treatment, enforcement and harm reduction), suicide prevention interventions as well as violence prevention strategies, have to be included in strategies to reduce harm from drug use. Harm reduction strategies have always been focused on reducing morbidity and mortality associated with overdose, HIV, and other problems, but little consideration is currently given to suicide. The same happens with interventions focused on preventing violence that generates fatal and non-fatal consequences for health.

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ANNEX 1

Published articles of the thesis:

Arribas-Ibar E, Sánchez-Niubò A, Majó X, Domingo-Salvany A, Brugal MT. Coverage of overdose prevention programs for opiate users and injectors: a cross-sectional study. Harm Reduct J. 2014 Nov 22;11(1):33. doi: 10.1186/1477-7517-11-33.

Manuscript submitted for publication to journals:

Arribas-Ibar, E., Sánchez- Niubò, A., Brugal, M.T., Suelves, J., Domingo-Salvany, A. *Suicidal behavior in men and women users of illicit drugs recruited in drug treatment facilities.* Under revision in Gaceta Sanitaria.

Arribas-Ibar, E., Brugal, M.T., Sánchez- Niubò, A., Domingo-Salvany, A., Suelves, J. *Interpersonal violence among illicit drug users.* Under revision in the Journal of Interpersonal Violence.

Arribas-Ibar E, Sánchez-Niubò A, Majó X, Domingo-Salvany A, Brugal M. Coverage of overdose prevention programs for opiate users and injectors: a cross-sectional study. Harm Reduct J. 2014 Nov 22;11(1):33. DOI: 10.1186/1477-7517-11-33

Arribas-Ibar E, Suelves JM, Sanchez-Niubò A, Domingo-Salvany A, T. Brugal M. Suicidal behaviours in male and female users of illicit drugs recruited in drug treatment facilities. Gac Sanit. 2017 Jul;31(4):292–8. DOI: 10.1016/j.gaceta.2016.11.011

Interpersonal violence among illicit drug users recruited in drug treatment facilities

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ABSTRACT

Introduction and Aims: Illicit drug use is known to be associated with injuries resulting from violence. We aim to estimate prevalence of violence (both victim and offender status) in illicit drug users, identify their characteristics, and study the victim-offender overlap, separately by gender. **Design and Methods:** Illicit drug using participants (502) were recruited in drug treatment facilities. Violence was assessed using four questions screening for being a victim of violence and one for being a perpetrator of physical violence in last 12 months. Associations between violence and various factors (socio-demographic, substance use, crime and illegal drug market activities) were examined with Poisson regression models. **Results:** History of victimization was reported by 49.6% men and 54.7% women; 36.5% men and 27.6% women reported being offenders. More than half the victims were also offenders, especially men (58.5% vs 40.3% for women) and 80% of offenders also reported a history of victimization. A higher prevalence ratio of both victim and offender was observed among participants with marginal income generation activities and alcohol risk use. Being a victim was more likely in women using parenteral route and among men with early illegal drug use, illegal polydrug use or prison history. Being an offender was more likely among men reporting psychological treatment, early illegal drug use, illegal polydrug use or prison history, and women reporting early illegal drug use or trafficking. **Discussion and Conclusions:** A high prevalence of violence (both victim

and perpetration) was found in illicit drug users, especially those involved in market activities and crime. Drug treatment facilities should consider assessing for history of and signs of violence and promote community health strategies.

Keywords: Crime; Drug users; Gender; Violence; Victim-offender overlap.

INTRODUCTION

Drug abuse is associated not only with a high rate of physical and psychiatric comorbidity and mortality (Single, Robson, Rehm, & Xi, 1999; Borges, Walters, & Kessler, 2000; Roy, 2001; Fridell & Nilson, 2004; Torrens, Gilchrist, & Domingo-Salvany, 2011), but also with a progressive degradation of social factors such as interpersonal relationships and environment as a consequence of drug addiction (United Nations Office on Drugs and Crime, 1995; Schäfer, 2011; Wahler, 2012), including violence (Fagan, 1993; Athanasiadus, 1999; MacDonald, Wells, Giesbrecht, & Cherpitel, 1999; Boles & Miotto, 2003; Cunningham et al., 2003). Such contextual factors can appear as a consequence of the drug consumption itself or conversely may themselves increase the risks of drug use, meaning they can have a circular effect (Rutter, 2002).

Previous investigators have examined the complex interpersonal and social context related to crime and violence among illicit drug users (Goldstein, 1985; Fagan, 1990, 1993; Bennett, Holloway, & Farrington, 2008; Jennings, Piquero, & Reingle, 2012) and many studies have highlighted the importance of context for understanding the ways in which drugs are related to violence (Parker & Auerhahn, 1998; MacDonald, Wells, Giesbrecht, & Cherpitel, 1999; Reuter, 2009; Werb et al., 2011). Goldstein (1985) proposed three potential models to explain this relationship: i) Economic

compulsive-crime as a means of getting money to support drug use, ii) Psychopharmacological-drug effects resulting in a change or impairment in cognitive functioning that precipitates criminal behavior; and iii) Systemic -crime occurring as part of the system of drug distribution and use (Goldstein, 1985).

Several studies have explored Goldstein's economic compulsive-crime model and reported a disproportionate number of violent events and crimes committed for financial gain (acquisitions crimes) (Klee, & Morris, 1994; U.S. Department of Justice, 1994; Parker & Auerhahn, 1998; Topalli, White & Gorman, 2000; Wright, & Fornango, 2002; MacDonald, Tinsley, Collingwood, Jamieson, & Pudney, 2005; Bennett, Holloway, & Farrington, 2008). Other studies have focused on Goldstein's second model, i.e. on how the "psychopharmacological-drug effect" may promote violent behaviors (Thal, Bost, & Anderson, 1985; Lindenbaum, Weissberg, & Terry, 1989; Sims et al., 1989; Cunningham et al., 2003; Blondell et al., 2005; Moore & Foreman-Peck, 2009; Darke, Torok, Kaye, Ross, & McKetin, 2010; Pierce, et al., 2015). For example, Darke et al. found that regular methamphetamine users were more likely to have been offenders in the last 12 months than regular heroin users and proposed that the pharmacological properties of methamphetamine may have been related to the relative increase in crime (Darke, Torok, Kaye, Ross, & McKetin, 2010). In relation to Goldstein's third model, several studies have demonstrated the influence of illegal drug activities (supply and distribution) in provoking violence (Seddon, 2000; Rodriguez & Griffin, 2005; Reuter, 2009; United Nations Office on Drugs and Crime, 2013). In fact, drug market activities are a key aspect of the risk environment surrounding illicit drug users (Ritter, 2006; Reuter, 2009) with multiple forms of violence (physical, sexual etc.) having been identified around unregulated drug markets (Goldstein, 1985) as a result of collecting drug

debts; punishing informers, etc. There is growing consensus that the majority of drug-related violence is systemic in nature (Erickson, 2001); however systemic violence including analyses of drug market involvement and other illegal and marginal activities has remained relatively under-examined, especially in drug users requesting treatment and prevention at health care centers.

In studying violent behaviors it is important to be aware of the existing correlation between victim and offender status, the so called victim-offender overlap (Jennings, Piquero, & Reingle, 2012). Cunningham et al. found that more than half of injured patients (57.5%) in an emergency department had reported being both a victim and an offender (Cunningham et al., 2003). In support of that, other research found that offenders and victims share a similar demographic profile and that victimization and perpetration appear to have related etiology (Daday, Broidy, Crandall, & Sklar, 2005).

Posick and Zimmerman posit that to better understand the victim and offender profile and its overlap, gender differences need to be considered (Posick & Zimmerman, 2015). Furthermore, gender has been identified as a key factor to distinguish victims and offenders (Schreck, Stewart, & Fisher, 2006), with males being more commonly involved in violence related to crime (Bachman & Saltzman, 1995; Lauritsen & Carbone-Lopez, 2011) and women being more commonly exposed to intimate partner violence and sexual assault (Rand, Klaus, & Maston, 2007; Lim et al., 2013). Thus, a gender perspective should be taken into account when examining the victim-offender overlap.

THE CURRENT STUDY AND HYPOTHESIS

Accordingly, the present study aims to estimate the prevalence of violence among illicit drug users seeking care in drug treatment facilities, to identify the characteristics of victims and offenders, as well as to study the victim–offender overlap, separately for men and women. We hypothesized that drug users ever involved in Drug trafficking or other illegal activities would be more likely to report both victimization and offending in the last year and that this trend would be more notable in men than in women. Similarly we hypothesized that subjects reporting having been in prison would also be more likely to report both past-year victimization and offending; with the same gender trend. Finally, we hypothesized that no gender differences would be observed in the victim-offender overlap.

METHODS

Study setting and population

This is a cross-sectional study among illicit drug users recruited from drug treatment and prevention centers in Catalonia, Spain between April and June 2012. From the list of current public treatment facilities 48 centers were selected to cover the whole territory: 26 Outpatient Treatment Centers (OTC), 12 Therapeutic Communities (ThC), and 10 Harm Reduction Facilities (HRF). Sampling strategies were adapted for each type of center in order to recruit a number of participants determined based on their activity and size. All participants answered a questionnaire of 78-items about socio-demographic aspects, substance use patterns, health services evaluation, crime, market activities and violence. This study was approved by the IMIM (*Hospital del Mar Medical Research Institute*) ethics committee. Informed consent was obtained from participants prior their

involvement in the research. Participants from HRF were compensated with 10 euros. A total of 558 individuals with illegal drug use were approached and 42 rejected participation and 2 questionnaires were excluded because they were incomplete.

Dependent variables: victim and offender

Violence was assessed based on five questions referring to the last 12 months. The first four questions provided information about violence suffered: 1) How many times have you been attacked, kicked, burned etc. or injured by firearm, knife, stick, broken bottle etc.? 2) How many times have you been a victim of any physical aggression not involving any weapon? 3) How many times have you been a victim of any sexual abuse? and 4) How many times have you been a victim of any psychological abuse?. Answers to these questions were summarized in a variable called "victim" in order to obtain overall victimization assessment of the study sample. It was considered affirmative when a respondent reported being a victim of any type of violence or aggression (physical with or without weapon, sexual, or psychological). Only one question referred to violence perpetrated: 5) How many times have you physically attacked others? (with weapon, beating, pushing, etc.). If a violent episode was reported the participant was considered "offender".

Independent variables

Independent variables included in the study encompassed socio-demographic aspects (country of birth, municipality, place of residence, level of education, employment status, marital status); psychological treatment; substance use patterns (age at first illegal drug use, parenteral administration ever, alcohol risk use and recent illegal polydrug use), illegal

drug market activities (ever trafficked and income generation activities) and crime (prison ever).

Psychological treatment was assessed for the 12 months prior to survey administration. Alcohol risk use was measured through the Alcohol Use Disorders Identification Test (AUDIT-C), referred to the last 12 months, considering alcohol risk users those men with a score of 4 or more and women with 3 or more (Contel, Gual, & Colom, 1999). Recent polydrug use was defined as the daily use of two or more illicit substances during the last 30 days of active use. A variable was created reflecting income generating activities (IGA), in which we distinguished between legal activities and illegal or marginally legal ones; "legal activities" was coded if no illegal/marginal activity was reported.

Statistical analysis

Analyses were performed by gender, separately for violence received (VICTIM) and violence perpetrated (OFFENDER). Descriptive information and comparisons were obtained by chi-square and student's t test. When in a given variable there were more than 15 missing answers, a new category was created in order to avoid losing these cases from the analysis. Prevalence ratios (PR) were calculated to identify factors associated with violence through Poisson regression models, with robust variance. In these models, generalized estimating equations (GEE) were used to take into account correlated observations according to the type of recruitment center (HRF, OTC, or ThC). All variables with a p-value greater than 0.20 in the descriptive analyses were included in a model and then removed using a stepwise backward procedure until the model had only significant variables ($p<0.05$). Psychoactive substance use variables were not included in the model due to the fact that reported drug consumption would refer to different time periods, as subjects recruited in

different centers would have had different treatment schedules. A total of four models, two for victim (men and women) and two for offender were fitted, adjusting for age and statistically significant socio-demographic variables (see in the tables' footnotes). Finally, in order to assess the victim-offender overlap, the resulting models for victim were further adjusted by offender status, and viceversa, the offender model by victim status. Potential confounders and interactions were tested. All analyses were performed using SPSS version 18.

RESULTS

Sample description

Among the valid participants (N=514), 502 reported violence information; 384 were men (76.5%) and 118 were women. Their mean age was 37.9 years (SD 8.6). More than half of the participants came from OTC (61.8%) while HRF and ThC accounted for approximately 19% each. Past year alcohol risk use was higher for men (51.5% vs 39.8% for women). Illicit drug use initiation at under 14 years old was 52.1% in men and 37.7% in women. The majority of the participants (91.0%) had used cocaine or crack, 86.5% cannabis, and 37.6% opiates (heroin and methadone). One third (34.2%) of subjects were illicit polydrug users. More women reported psychological treatment (39.2% vs 25.8% for men). More men had been sentenced to prison (44.8% vs 29.7% for women). Men reported more Drug trafficking activities (52.9% vs 42.4% for women). Finally, marginal IGA were more frequently reported by men (84.4% vs 74.6% of women).

Prevalence of different forms of violence

The last 12-month prevalence of being a victim was 50.8% (49.6% for men vs 54.7% for women) and of being an offender 34.4% (36.5% for men vs 27.6% for women) (Table 1). Although women more often reported being

victims and men more frequently reported being offenders, differences were not statistically significant. Experiencing a physical attack (without weapon) or psychological abuse was more common (around 33% each) than experiencing physical attack with a weapon (17.4%) or sexual abuse (3.5%). A higher proportion of men reported victimization from physical attack (with and without weapon) while a higher proportion of women reported sexual and psychological abuse. Gender differences were significant for all forms of violence, except for physical attack without weapon.

Victim analyses

The only socio-demographic variables significantly associated with 'victim' were employment status and residence in men (Table 2). All drug use patterns were associated with victim status in men while for women the associated variables were alcohol risk use, parenteral route, and illegal polydrug use. Also all crime and market variables were statistically significant for men while for women only IGA.

Multivariate results for victim are shown in Table 3. Among men higher PR of victim were observed for early illegal drug consumption (≤14 years) (PR=1.3; 95%CI:1.1-1.4), alcohol risk use (PR=1.2; 95%CI:1.1-1.4), recent illegal polydrug use (PR=1.5; 95%CI:1.1-2.0), ever sentenced to prison (PR=1.3; 95%CI:1.2-1.5) and involved in marginal IGA (PR=1.3; 95%CI:1.1-1.5). For women, higher PR of victimization was associated with alcohol risk use (PR=1.5; 95%CI:1.3-1.7), parenteral route (PR=1.5; 95%CI:1.1-1.7) and marginal IGA (PR=1.4;95%CI:1.2-1.6).

Offender analyses

Younger adults (≤ 35 years), both men and women, reported higher prevalence of offending (43.1% for men and 38.3% for women) than older

participants. Other socio-demographic variables significantly associated with 'offender' were employment status and residence in men (Table 4). For both genders, offending was significantly more common amongst those who started drug use early (≤14 years) (46.7% for men and 38.6% for women), were alcohol risk users (49.0% for men and 48.9% for women) or illegal polydrug users (56.3% for men and 42.9% for women); also men using parenteral route and opiates reported being more frequently offender. Offending was higher in men when they had been involved in crime (45.5% of those ever sentenced to prison, 44.5% of those involved in Drug trafficking and 40.8% in marginal IGA), while women who had been involved in drug trafficking were more likely to report offending (38.8%).

Multivariate results for offender status are shown in Table 5. Men reporting psychological treatment (PR=1.4; 95%CI:1.2-1.7), started illegal drug use early (≤14 years old) (PR=1.4; 95%CI:1.3-1.6), were alcohol risk users (PR=1.9; 95%CI:1.8-2.1), were recent illegal polydrug users (PR=1.7; 95%CI:1.5-1.9), those sentenced to prison (PR=1.4; 95%CI:1.1-1.9), and involved in marginal IGA (PR=2.0; 95%CI:1.3-3.2) were more likely to be offenders. For women, those more likely to have been offenders were those with early illegal drug use (≤14 years) (PR=1.4; 95%CI:1.1-1.8), alcohol risk users (PR=3.2; 95%CI:1.9-5.3), and those involved in Drug trafficking (PR=1.5; 95%CI:1.4-1.7) and marginal IGA (PR=2.1; 95%CI:1.8-2.3).

Victim- Offender overlap

Of the studied sample, 12 participants didn't answer either victim or offender questions, leaving our analyses of victim-offender overlap with 375 men and 115 women. Considering both men and women, 132 of the 245 victims also reported being offenders (53.9%); this relation differed by gender (n=107/183, 58.5% of men and n=25/62, 40.2% of women) ($p<0.02$). Conversely, the great majority of those reporting being offenders

(n=166) also reported having been victims (n=132, 79.5%) with no differences by gender (men n=107/135, 79.3% and women n=25/31, 80.6%).

When the variable offender was included in the victim models (for each gender), the PR of being a victim for a male offender (vs non offender) was PR=2.1(95%CI: 2.0-2.3) and for a female offender PR=1.6 (95%CI:1.4-1.8). Alcohol risk use lost significance for the association with being a victim. The rest of variables remained significant except parenteral route for women. The PR of being an offender for those subjects who reported having been victims was three times higher (PR=3.0; 95%CI:2.2-3.9) in men and two times higher (PR=2.3; 95%CI:2.0-2.7) in women, than those who did not report a history of victimization. Variables that ceased to be significant were having been sentenced to prison for men and early illegal drug use for women.

DISCUSSION

High levels of recent violence were observed in illicit drug users attending specific health facilities; half of them reported being victims (physical, psychological or sexual) and around one third reported being offenders. Although the prevalence of being a victim was higher for women and offender for men, the differences were not significant. The great majority of offenders had also been victims and only half of victims were offenders. For both genders, illegal or marginal income generation activities were associated with victim and offender status, and when considering the victim-offender overlap, alcohol risk use was only associated with offender status. Furthermore, victimization was more likely in men with early illegal drug consumption, illegal polydrug use and prison history, whereas among women it was only more likely for those who had used parenteral route. Regarding offending, it was higher in men who had sought psychological

treatment, those who reported early drug consumption, illegal polydrug use and for those sentenced to prison, and for women reporting early drug consumption and illegal drug trafficking.

Some limitations need to be considered. First, as victimization patterns differ by gender, and a single person can have suffered several forms of violence, all victimization forms were analyzed together enabling a more robust analysis by increasing the sample size. Second, this study did not consider more remote history of prior victimization or perpetration, only violence during the previous 12 months, allowing better recall and the analysis with other events (psychological treatment, illegal polydrug use, alcohol risk use) occurring in the same period. Third, self-report relies on the memory of the respondents and can also be influenced by social desirability; However, some drug user studies have shown that cross-sectional results are valid despite being self-reported (Maisto, McKay, & Connors, 1990). If there was an under reporting of violence, prevalence estimates would also be underestimated. Nevertheless, for some specific forms (e.g.: psychological abuse) we cannot rule out possible over reporting due to individual differences in sensitivity to violence (Collyer, Brell, Moster, & Furey, 2011). Fourth, recruitment was done among illicit drug users in health centers, thus results can at most represent drug users in healthcare facilities and may not be generalizable to the non-treatment-seeking population. Finally, the study design does not allow inferences regarding causality of violence and the independent variables.

This study includes various forms of victimization (not only physical) but only physical offending, and this needs to be taken into account when comparing with other studies. Reported levels of violence among illicit drug users were high, but fall within the range found in previous studies in this population: Darke et al. found around 41% of methamphetamine and

heroin users had committed some violent crime and 46% had been victims of violence in the previous 12 months (Darke, Torok, Kaye, Ross, & McKetin, 2010). Steven et al. found a very high prevalence of victimization by physical attack or assault (68.9%) in users entering treatment in four European countries (Stevens et al., 2007). Gilchrist et al. found that 34% of men in drug treatment centers reported perpetrating intimate partner violence (physical or sexual) in the last 12 months (Gilchrist et al. 2015). An emergency department study found that 40.7% of injured patients with alcohol and illicit substances consumption reported having been victims of sexual abuse, violence with a weapon, pushing, etc. and 35.6% were offenders (Cunningham et al., 2003), figures also approaching those of the present study. The prevalence of reported violence in the general population is much lower: regarding specific forms of violence; a national American sample found a prevalence of general violence in the previous 12 months of 3.0% in women and 3.9% in men (Tjaden, & Thoennes, 2000) and in another national sample, the 1.1% of the population experienced at least one violent victimization (Lauritsen & Rezey, 2013).

As in Darke et al. (Darke, Torok, Kaye, Ross, & McKetin, 2010) no gender differences were found for victimization and offending in this study. Gender differences have only been found in relation to the different forms of violence. Psychological and sexual abuse were more frequently reported among women, and physical assault involving a weapon was more frequently reported by men. In line with this, findings from the National Intimate Partner and Sexual Violence Survey (NISVS) found that women were more likely to be victims of expressive aggression (40% vs 32% of men) considering verbal abuse or emotional violence in response to some agitating or aggravating circumstance (Black, Basile, Breiding, Smith, Walters, et al. (2011). As males are usually more involved in criminal behavior and in illegal drug market activities (Chermack, Fuller, & Blow,

2000; Rodriguez & Griffin, 2005), it is not surprising that violence with weapon was more frequent among males in our study.

For both genders, marginal IGA was associated with being a victim and/or offender and specifically, women involved in illegal drug market activities were more likely to be offenders. The evidence shows that the need to obtain money to purchase drugs in unfavorable social contexts induces many users to engage in marginal or illegal activities (Goldstein, 1985; Kuhns, 2005; Carpentier, 2007; Richardson et al., 2015). In our study, sex work, included among marginal IGA, when analyzed jointly for both genders (data not shown), found that people working in sex work were more likely to be victims. Likewise, in a study of female sexual workers (the vast majority of whom also reported using drugs), Gilchrist et al. noted that participants reported they had frequently been subject to violent physical assault (47%) and to sexual assault (39%) while working (Gilchrist et al., 2001). While involvement in the drug market is greater in men (Anderson, 2001) and is probably related to a higher drug consumption (OAS, 1997), in our study only women involved in Drug trafficking were more likely to be offenders, though not victims. In contrast, only men sentenced to prison (for criminal and drug activities) were more likely to be both, victim and offender.

The victim-offender overlap was very high in this sample of illicit drug users for both men and women, as Darke et al. (Darke, Torok, Kaye, Ross, & McKetin, 2010) also found. Noticeably, the overlap was higher for offenders, men and women, who also reported being victims; while the proportion of victims reporting physical perpetration was lower and differed by gender (higher in men). This finding is not unexpected due to the fact that offender referred only to physical violence, while victims could be also from sexual or psychological violence. Note that violence reported

by women victims was more frequently sexual and psychological. As reported in the general population (Shäffer, 2004), when only physical violence was assessed (data not shown), there were no gender differences in the probability of a victim becoming offender and vice versa. Another important point to note is the confounding role of alcohol risk use in the association of alcohol with being a victim in the overlap models. In our study risk alcohol use was associated with both offenders and victims; however, when the victim model was adjusted with the variable 'offender', the association with alcohol disappeared. Although certain studies assessing only the relation between alcohol use and being a victim found associations between them (Testa & Hoffman, 2012; Strunin et al., 2015), our results are consistent with other studies mentioning alcohol as the substance most frequently related to aggressive and violent behaviors (Bushman & Cooper, 1990; Crane, Godleski, Przybyla, Schlauch, & Testa, 2006; Testa & Derrick, 2014).

An elevated prevalence of violence was found among illicit drug users, especially in those involved in crime and market activities. Alcohol risk use was also associated with violence, particularly with being an offender. In relation to this high prevalence of violence reported by illicit drug users, drug treatment facilities should assess violence signs and promote development of prevention and treatment programs to tackle violence. Future research could assess effectiveness of such strategies.

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Table 1. Type of violence in illicit drug users in the last 12 months, separately by gender.

	MEN			WOMEN			TOTAL		
	n	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**
VICTIM[a]	**381**			**117**			**498**		
Yes	189	49.6	(44.6-54.6)	64	54.7	(45.7-63.7)	253	50.8	(46.4-55.2)
Physical victim (weapon)[b]	**370**			**112**			**482**		
Yes	73	19.7	(15.7-23.7)	11	9.8	(4.3-15.3)	84	17.4	(14.0-20.8)*
Physical victim (no weapon)	**376**			**114**			**490**		
Yes	128	34.0	(29.3-38.8)	32	28.1	(19.8-36.3)	160	32.6	(29.0-36.8)
Sexual victim	**364**			**113**			**477**		
Yes	6	1.6	(0.0-3.0)	10	8.8	(3.6-14.1)	16	3.4	(1.7-5.0)**
Psychological victim	**372**			**117**			**489**		
Yes	109	29.3	(24.7-33.9)	52	44.4	(35.4-53.4)	161	32.9	(28.8-37.1)**
OFFENDER (physical)[c]	**378**			**116**			**494**		
Yes	138	36.5	(31.7-41.4)	32	27.6	(19.4-35.7)	170	34.4	(30.2-38.6)

**p<0.01, *p<0.05, Statistical significance in difference by gender.

[a] Including one or more forms of victimization: physical victim (with/without weapon), sexual victim and psychological abuse.

[b] Attacked, kicked, burned, injured by firearm, knife, stick, broken bottle etc.

[c] Physical aggression.

Table 2. Socio-demographic, psychoactive substance use patterns and crime and market aspects associated with violence suffered (VICTIM) last 12 months, by gender.

		Men				Women			
		N	YES			N	YES		
			n	%	p		n	%	p
Total		**381**	**189**	**49.6**		**117**	**64**	**54.7**	
Age	≤ 35	159	85	53.5	0.22	47	30	63.8	0.10
	≥ 36	221	104	47.1		70	34	48.6	
Country of birth	Spain	341	164	48.1	0.09	108	59	54.6	0.96
	Other countries[a]	40	25	62.5		9	5	55.6	
Recruitment center	OTC	228	97	42,5	<0.01	82	41	50	0.21
	HRC	76	55	72,4		21	15	71.4	
	ThC	77	37	48,1		14	8	57.1	
Municipality		381			0.07				0.33
	Less than 100,000 inh;not BMC	102	44	43.1		35	22	62.9	
	More than 100,000 inh; not BMC	84	37	44.0		17	7	41.3	
	Barcelona and BMC	195	108	55.4		65	35	53.8	
Level of education					0.14				0.18
	High school / university	112	47	42.0		41	18	43.9	
	Secondary education	156	84	53.8		42	24	57.1	
	Primary / elementary	113	58	51.3		34	22	64.7	
Employment status	working	72	22	30.6	<0.01	22	9	40.9	0.08
	Unemployment/ had never worked	234	131	56.0		75	40	53.3	
	Permanent disability/ pensioner	74	36	48.6		20	15	75.0	
Residence	Alone	58	28	48.3	<0.01	22	11	50.0	0.78
	Married or single couple	63	29	46.0		29	17	58.6	
	Other relatives /friends	136	48	35.3		46	25	54.3	
	On the street/ squatter	56	49	87.5		8	6	75.0	
	Therapeutic community	62	31	50.0		10	5	50.0	
Psychological treatment[b]	No	268	128	47.8	0.84	69	34	49.3	0.25
	Yes	94	46	48.9		43	26	60.5	
PSYCHOACTIVE SUBSTANCE USE PATTERNS									
Age at first illegal drug use					<0.01				0.34
	≤14 years	198	116	58.6		43	26	60.5	
	≥15 years	181	73	40.3		74	38	51.4	
Alcohol risk use [b, c]	No	186	82	44.1	0.04	71	33	46.5	0.03
	Yes	195	107	54.9		46	31	67.4	
Parenteral route ever	No	207	91	44.0	0.01	73	34	46.6	0.02
	Yes	172	98	57.0		44	30	68.2	
Opiates ever	No	149	57	38.3	<0.01	55	26	47.3	0.13
	Yes	232	123	56.9		62	38	61.3	

Cocaine and/or crack ever								
No	32	9	28.1	0.01	13	4	30.8	0.07
Yes	346	178	51.4		104	60	57.7	
Recent illegal polydrug use No	234	94	40.2	<0.02	78	36	46.2	0.01
Yes	126	87	69.0		35	26	74.3	
CRIME AND MARKET								
Sentenced to prison Never	209	85	40.7	<0.01	82	41	50.0	0.12
Ever	170	102	60.0		35	23	65.7	
Drug trafficking Never	180	79	43.9	<0.05	67	33	49.3	0.17
Ever	201	110	54.7		50	31	62.0	
Drug supplier				0.05				0.07
Family/friends/colleagues	28	8	28.6		13	6	46.2	
Dealer/ marginal sources	145	71	49.0		44	19	43.2	
Both	207	110	53.1		60	39	65.0	
Income generation activities				0.01				0.02
Legal [d]	59	18	30.5		30	11	36.7	
Illegal and/ or marginal[d]	322	171	53.1		87	53	60.9	

[a] Other countries: Rest of Europe, America, Asia, North Africa.

[b] Last 12 months

[c] According to AUDIT C.

[d] Legal activities: money obtained from family, partner, legal job, pension or street trade; Illegal or marginally legal activities money obtained from sex work, stealing, peddling, begging or borrowing on credit from the dealer.

Table 3. Poisson regression models exploring factors associated with victimization in the last 12 months, by gender.

	Men [a]			Women [b]		
	N (376)	**PR[c]**	**95% CI[c]**	**N (117)**	**PR**	**95% CI**
Age at first illegal drug use						
≥ 15 years	179	1				
≤ 14 years	197	1.3	(1.1-1.4)*			
Alcohol risk use [d]						
No	184	1		71	1	
Yes	192	1.2	(1.1-1.4)*	46	1.5	(1.3-1.7)*
Parenteral route ever						
No				73	1	
Yes				44	1.5	(1.1-1.7)*
Recent illegal polydrug use						
No	232	1				
Yes	124	1.5	(1.1-2.0)*			
Missing [e]	20	1.0	(0.9-1.2)			
Sentenced to prison						
Never	208	1				
Ever	168	1.3	(1.2-1.5)*			
Income generation activities						
Legal [f]	59	1		30	1	
Illegal and/ or marginal[f]	317	1.3	(1.1-1.5)*	87	1.4	(1.2-1.6)*

*p<0.05

[a] Poisson regression with robust variance, adjusted by age and country of birth.

[b] Poisson regression with robust variance, adjusted by age and level of education.

[c] PR: Prevalence Ratio; CI: Confidence Interval.

[d] According to AUDIT C.

[e] Missing category was created in order to avoid losing these cases from the analysis.

f Legal activities: money obtained from family, partner, legal job, pension or street trade; Illegal or marginally legal activities money obtained from sex work, stealing, peddling, begging or borrowing on credit from the dealer.

Table 4. Socio-demographic, psychoactive substance use patterns and crime and market aspects associated with offenders in the last 12 months, by gender.

	Men				Women			
	N	**YES**			**N**	**YES**		
		n	**%**	**p**		**n**	**%**	**p**
Total	**378**	138	36.5		**116**	32	27.6	
Age ≤ 35 years	160	69	43.1	0.02	47	18	38.3	0.03
≥ 36 years	217	69	31.8		69	14	20.3	
Country of birth Spain	339	127	37.5	0.26	107	31	29.0	0.25
Other countries[a]	39	11	28.2		9	1	11.1	
Recruitment center OTC	227	65	28.6	<0.01	82	20	24.4	0.21
HRC	75	39	52.0		19	5	26.3	
ThC	76	34	44.7		15	7	46.7	
Municipality				0.19				0.57
< 100,000 inh; not BMC	101	33	32.7		35	11	31.4	
> 100,000 inh; not BMC	83	25	30.1		17	3	17.6	
Barcelona and BMC	191	77	40.3		63	17	27.0	
Level of education								
High school / university	112	37	33.0	0.30	40	10	25.0	0.68
Secondary education	153	63	41.2		43	11	25.6	
Primary / elementary	113	38	33.6		33	11	33.3	
Employment status Working	72	17	23.6	0.03	22	5	22.7	0.82
Unemployment/never work	232	94	40.5		75	22	29.3	
Permanent disability/ pens.	73	26	35.6		19	5	26.3	
Residence Alone	58	17	29.3	<0.01	22	3	13.6	0.31
Married or single couple	62	21	33.9		29	7	24.1	
Other relatives /friends	135	37	27.4		45	15	33.3	
On the street/ squatter	56	33	58.9		7	2	28.6	
Therapeutic community	61	26	42.6		11	5	45.5	
Psychological treatment [b] No	268	88	32.8	0.06	68	15	22.1	0.10
Yes	91	40	44.0		44	16	36.4	
PSYCHOACTIVE SUBSTANCE USE PATTERNS								
Age at first illegal drug use				<0.01				0.04
≤ 14 years	195	91	46.7		44	17	38.6	
≥ 15 years	181	47	26.0		72	15	20.8	
Alcohol risk use [b,c] No	184	43	23.4	<0.01	69	9	13.0	<0.01
Yes	194	95	49.0		47	23	48.9	
Parenteral route ever No	208	66	31.7	0.03	73	17	23.3	0.17
Yes	168	72	42.9		43	15	34.9	
Opiates ever No	150	40	26.7	<0.01	55	14	25.5	0.63
Yes	228	98	43.0		61	18	29.5	
Cocaine and/or crack ever No	32	8	25.0	0.16	13	3	23.1	0.70
Yes	344	129	37.5		103	29	28.2	
Illegal polydrug use No	231	61	26.4	<0.01	77	17	22.1	0.03
Yes	126	71	56.3		35	15	42.9	

CRIME AND MARKET								
Sentenced to prison	Never	209	61	29.2	<0.01	83	19	22.9	0.07
	Ever	167	76	45.5		33	13	39.4	
Drug trafficking	Never	178	49	27.5	<0.01	67	13	19.4	0.02
	Ever	200	89	44.5		49	19	38.8	
Drug supplier					0.20				0.35
Family/friends/colleagues		28	6	21.4		13	3	23.1	
Dealer/ marginal sources		145	53	36.6		43	9	20.9	
Both		204	79	38.7		60	20	33.3	
Income generation activities					<0.01				0.06
Legal [d]		59	8	13.6		29	4	13.8	
Illegal and/or marginal[d]		319	130	40.8		87	28	32.2	

[a] Other countries: Rest of Europe, America, Asia, North Africa.

[b] Last 12 months.

[c] According to AUDIT C .

[d] Legal activities: money obtained from family, partner, legal job, pension or street trade; Illegal or marginally legal activities: money obtained from sex work, stealing, peddling, begging or borrowing on credit from the dealer.

Table 5. Poisson regression models exploring factors associated with violence perpetration (OFFENDER) in the last 12 months, by gender.

	Men[a]			Women[a]		
	N (373)	**PR [b]**	**95% CI [b]**	**N (116)**	**PR**	**95% CI**
Psychological treatment [c]						
No	263	1				
Yes	91	1.4	(1.2-1.7)*			
Missing [d]	19	1.3	(1.1-1.5)			
Age at first illegal drug use						
≥ 15 years	179	1		72	1	
≤ 14 years	194	1.4	(1.3-1.6)*	44	1.4	(1.1-1.8)*
Alcohol risk use [c,e]						
No	182	1		69	1	
Yes	191	1.9	(1.8-2.1)*	47	3.2	(1.9-5.3)*
Recent illegal polydrug use						
No	229	1				
Yes	124	1.7	(1.5-1.9)*			
Missing [d]	20	1.2	(0.9-1.6)			
Sentenced to prison						
Never	208	1				
Ever	165	1.4	(1.1-1.9)*			
Drug trafficking						
Never				67	1	
Ever				49	1.5	(1.4-1.7)*
Income generation activities						
Legal[f]	59	1		29	1	
Illegal and/or marginal[f]	314	2.0	(1.3-3.2)*	87	2.1	(1.8-2.3)*

*p<0.05

[a] Poisson regression with robust variance, adjusted by age.

[b] R: Prevalence Ratio; CI: Confidence Interval.

[c] Last 12 months

[d] Missing category was created in order to avoid losing these cases from the analysis.

[e] According to AUDIT

[f] Legal activities: money obtained from family, partner, legal job, pension or street trade; Illegal or marginally legal activities money obtained from sex work, stealing, peddling, begging or borrowing on credit from the dealer.

ANNEX 2

Questionnaire

1. Número de estudio ☐☐☐☐

2. Fecha de la encuesta ___ / ___ / 2 0 ___

Día Mes Año

3. Sexo: ☐ Hombre ☐ Mujer

4. ¿En qué año naciste? ____

5. ¿Cuál es tu país de nacimiento? _____

6. El municipio en que vives, ¿en qué categoría de las siguientes se sitúa?

- ☐ Barcelona
- ☐ Conurbación metropolitana de Barcelona –CMB- (incluye... Badalona, Cerdanyola, Cornellà, El Prat de Llobregat, Esplugues de Llobregat, l'Hospitalet, Montcada i Rexach, Sant Adrià del Besós, St Feliu de Llobregat, Sant Joan Despí, Sant Just Desvern, Sta Coloma de Gramanet)
- ☐ De más de 100.000 habitantes, no en CMB
- ☐ De 10001 a 100000 habitantes, no en CMB
- ☐ De 2001 a 10000 habitantes
- ☐ De 500 a 2000 habitantes
- ☐ De menos de 500 habitantes

7. ¿De qué provincia?

☐ Barcelona ☐ Tarragona ☐ Lleida ☐ Girona ☐ Otra (especificar)

_____

8. ¿Cuál es el nivel de estudios máximo que has alcanzado?

- ☐ Ningún título
- ☐ Estudios primarios (cursos 1º-6º)
- ☐ Estudios secundarios (ESO, graduado escolar)
- ☐ Bachillerato/ciclo de grado medio
- ☐ Título universitario
- ☐ Otros (p.ej., módulo profesional) (especificar): _____

9. ¿Qué nivel de estudios tienen/tenían tus padres?

	Padre	Madre
Ningún título	☐	☐
Estudios primarios (cursos 1º-6º)	☐	☐
Estudios secundarios (ESO, graduado escolar)	☐	☐
Bachillerato/ciclo de grado medio	☐	☐
Título universitario	☐	☐
Otros, p.ej., módulo profesional (Especificar más abajo)	☐	☐
NS/NC	☐	☐
	(Padre)	**(Madre)**
	_____	_____

10. ¿Cuál es tu situación laboral? ***(una respuesta; si es estudiante puede marcar dos respuestas)***

- ☐ **Estudiante**
- ☐ Trabaja con contrato indefinido
- ☐ Trabaja con contrato temporal
- ☐ Autónomo o profesional liberal
- ☐ Solamente trabajos esporádicos
- ☐ Nunca ha trabajado
- ☐ En el paro (con o sin pensión)
- ☐ Incapacidad laboral permanente
- ☐ Pensionista
- ☐ Trabajo en el hogar

VAMOS A HABLAR AHORA SOBRE TU RELACION CON LAS DROGAS ILEGALES

11. ¿Cuál de las siguientes drogas fue la primera que consumiste? *(Sólo una respuesta)*

- ☐ Tranquilizantes/sedantes (sin receta médica)
- ☐ Anfetaminas (espid)
- ☐ Éxtasis (MDMA u otras drogas de diseño)
- ☐ Cannabis (marihuana, hachís)
- ☐ Crack (basuco)
- ☐ Cocaína
- ☐ Heroína
- ☐ Setas alucinógenas
- ☐ Esteroides/anabolizantes
- ☐ Ketamina
- ☐ Inhalables volátiles
- ☐ LSA (semillas hawaianas)
- ☐ LSD
- ☐ GHB (éxtasis líquido)
- ☐ Heroína+Cocaína
- ☐ Metadona o metasedín de la calle
- ☐ KAT
- ☐ Otra droga (especificar) _____

12. ¿Qué edad tenías:

- la primera vez que consumiste esta sustancia? ⌊_⌊_⌋
- la primera vez que consumiste cocaína/heroína u otras drogas duras como anfetaminas, éxtasis, LSD...? (si procede) ⌊_⌊_⌋ ☐ No procede
- la primera vez que vendiste drogas ? (si procede) ⌊_⌊_⌋ ☐ No procede

13. ¿Por qué motivo/s probaste drogas por primera vez? *(Máximo tres respuestas)*

- ☐ Para divertirte/pasarlo bien
- ☐ Para ser diferente
- ☐ Para lesionarte/hacerte daño
- ☐ Tus amigos lo hacían
- ☐ Tu novia/novio lo hacía
- ☐ Había mucha droga en el colegio
- ☐ Había mucha droga en el trabajo
- ☐ Para funcionar mejor
- ☐ Para calmarte, relajarte
- ☐ Para hacer nuevos amigos
- ☐ Para huir de tus problemas, de tu vida
- ☐ Por curiosidad
- ☐ Otro (especificar) _____

14. ¿Dónde estabas cuando probaste drogas por primera vez? *(Sólo una respuesta)*

- ☐ En casa
- ☐ En la calle/plaza
- ☐ En una casa o centro okupa
- ☐ En prisión
- ☐ En un club, discoteca, bar, pub
- ☐ En una fiesta "rave"
- ☐ En la escuela
- ☐ En el trabajo
- ☐ En casa de amigos
- ☐ En el gimnasio
- ☐ En el parque
- ☐ En un centro juvenil (parroquial, de barrio, etc.)
- ☐ En un estadio/campo deportivo
- ☐ En el cine
- ☐ Otro (especificar) _____

15. ¿Era alguna ocasión especial? *(Sólo una respuesta)*

- ☐ Un día normal
- ☐ Una fiesta privada
- ☐ En vacaciones
- ☐ Un acontecimiento público (concierto, festival, desfile, etc.)
- ☐ Otro (especificar) _____

16. ¿Con quién estabas? *(Sólo una respuesta)*

- ☐ Solo/a
- ☐ Con amigos/as
- ☐ Con compañeros de clase
- ☐ Con tu novia/novio, exclusivamente
- ☐ Con conocidos
- ☐ Con familiares
- ☐ Otros (especificar) _____

17. Cuando probaste drogas por primera vez, ¿pensaste en los riesgos que implicaba? *(Sólo una respuesta)*

- ☐ Solo pensé que me descontrolaría un rato
- ☐ Pensé en la adicción pero no creí que pudiera pasarme
- ☐ En general, pensé que las ventajas superaban los riesgos
- ☐ No, no pensé en ello

18. ¿Cómo describirías el ambiente familiar cuando empezaste a consumir drogas? *(Sólo una respuesta)*

- ☐ Era imposible dialogar
- ☐ Había muchas peleas
- ☐ Había indiferencia
- ☐ Había mucho diálogo
- ☐ El ambiente era tranquilo y afectuoso

19. ¿Cómo describirías la relación con tus amigos cuando empezaste a consumir drogas? *(Sólo una respuesta)*

- ☐ Muy hostil y conflictiva
- ☐ No tenía muchos amigos
- ☐ Ni buena ni mala
- ☐ Muy buena y solíamos salir juntos
- ☐ Tenías largas conversaciones con tus amigos

20. ¿Podrias decirnos (señalar) todas las edades en las que consumiste drogas la mayor parte del año, desde la edad que tenías la primera vez que consumiste. No consideres los años en los que estuviste sin consumir durante 6 meses o más.

9 ☐	10 ☐	11 ☐	12 ☐	13 ☐	14 ☐	15 ☐	16 ☐	17 ☐	18 ☐	19 ☐	20 ☐
21 ☐	22 ☐	23 ☐	24 ☐	25 ☐	26 ☐	27 ☐	28 ☐	29 ☐	30 ☐	31 ☐	32 ☐
33 ☐	34 ☐	35 ☐	36 ☐	37 ☐	38 ☐	39 ☐	40 ☐	41 ☐	42 ☐	43 ☐	44 ☐
45 ☐	46 ☐	47 ☐	48 ☐	49 ☐	50 ☐	51 ☐	52 ☐	53 ☐	54 ☐	55 ☐	56 ☐

VAMOS A HABLAR UN POCO SOBRE LA VÍA DE CONSUMO

21. Alguna vez, ¿te has inyectado alguna sustancia para un consumo no médico, aunque fuera una sola vez?

☐ Si

☐ No ***>>> SALTAR A 23***

☐ NS/NC

22a. ¿Qué edad tenías cuando te inyectaste por primera vez? Incluye tanto la auto-inyección como la inyección por otra persona.

☐☐ años ☐ NS/NC

22b. ¿Cuándo te inyectaste una sustancia por última vez?

☐☐ dia ☐☐ mes ☐☐☐☐ año

(si hace más de cuatro semanas puedes registrar sólo el mes y año; si hace mucho y no recuerdas el mes, sólo el año)

23. ¿Podrías decirnos cuál de las siguientes drogas consumías (marcar) y, si la recuerdas, la cantidad en un día habitual de consumo, en los diferentes períodos de tiempo indicados?

	Durante el primer año de consumo	Después de tres años de consumo	La última vez que consumiste drogas	NUNCA
Anfetaminas (espid)	☐ ☐☐,☐ Nº de pastillas/día	☐ ☐☐,☐ Nº de pastillas/día	☐ ☐☐,☐ Nº de pastillas/día	☐
Tranquilizantes/sedantes (sin receta)	☐ ☐☐,☐ Nº de pastillas/día	☐ ☐☐,☐ Nº de pastillas/día	☐ ☐☐,☐ Nº de pastillas/día	☐
Éxtasis u otras drogas de diseño	☐ ☐☐,☐ Nº de dosis / día	☐ ☐☐,☐ Nº de dosis /día	☐ ☐☐,☐ Nº de dosis / día	☐
Cannabis (marihuana, hachís)	☐ ☐☐,☐ Nº de porros/día	☐ ☐☐,☐ Nº de porros /día	☐ ☐☐,☐ Nº de porros / día	☐
Crack (cocaína base, basuco)	☐ ☐☐,☐ Nº de dosis / día	☐ ☐☐,☐ Nº de dosis /día	☐ ☐☐,☐ Nº de dosis / día	☐

23. (continuación -- drogas consumidas y cantidad en un día habitual de consumo)

	Durante el primer año de consumo	Después de tres años de consumo	La última vez que consumiste drogas	NUNCA
Cocaína	☐ ☐☐,☐ Nº de rayas / día	☐ ☐☐,☐ Nº de rayas /día	☐ ☐☐,☐ Nº de rayas / día	☐
Heroína	☐ ☐☐,☐ Nº de dosis / día	☐ ☐☐,☐ Nº de dosis /día	☐ ☐☐,☐ Nº de dosis / día	☐
Setas alucinógenas	☐ ☐☐,☐ Nº / día	☐ ☐☐,☐ Nº / día	☐ ☐☐,☐ Nº / día	☐
Ketamina	☐ ☐☐,☐ Nº pastillas / día	☐ ☐☐,☐ Nº pastillas / día	☐ ☐☐,☐ Nº pastillas / día	☐
LSD	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
GHB (éxtasis líquido)	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
Heroína+Cocaína	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
Inhalables volátiles	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
Metadona o metasedín de la calle	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
Esteroides / anabolizantes	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐
Otras drogas (especificar) _____	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐ ☐☐,☐ Nº dosis / día	☐

AHORA CÉNTRATE EN EL ÚLTIMO MES EN QUE CONSUMISTE DROGAS

24. ¿Durante ese último mes ¿qué drogas consumiste y cuántos días consumiste? *(Marcar una respuesta para cada línea)*

Nº de dias:	1 -2	3 - 5	6 - 9	10-19	20-30	no consumiste
Tranquilizantes/sedantes (sin receta)	☐	☐	☐	☐	☐	☐
Anfetaminas (espid)	☐	☐	☐	☐	☐	☐
Éxtasis u otra droga de diseño	☐	☐	☐	☐	☐	☐
Cannabis (marihuana, hachís)	☐	☐	☐	☐	☐	☐
Crack (basuco)	☐	☐	☐	☐	☐	☐
Cocaína	☐	☐	☐	☐	☐	☐
Heroína	☐	☐	☐	☐	☐	☐
Setas alucinógenas	☐	☐	☐	☐	☐	☐
Esteroides/anabolizantes	☐	☐	☐	☐	☐	☐
Ketamina	☐	☐	☐	☐	☐	☐
Inhalables volátiles	☐	☐	☐	☐	☐	☐
LSA	☐	☐	☐	☐	☐	☐
LSD	☐	☐	☐	☐	☐	☐
GHB (éxtasis líquido)	☐	☐	☐	☐	☐	☐
Heroína+Cocaína	☐	☐	☐	☐	☐	☐
Metadona o metasedin de la calle	☐	☐	☐	☐	☐	☐
KAT	☐	☐	☐	☐	☐	☐
Otras drogas (especificar…)	☐	☐	☐	☐	☐	☐

24a. ¿Podrias especificar el año al que hacen referencia estos consumos: ☐☐☐☐

25. En el último mes que consumiste drogas, ¿podrías decir cuál era habitualmente la calidad?
(*Marcar una respuesta para cada línea)*

	excelente calidad	calidad media-alta	baja	No consumiste
Éxtasis	☐	☐	☐	☐
Cannabis (marihuana, hachis)	☐	☐	☐	☐
Crack (basuco)	☐	☐	☐	☐
Cocaína	☐	☐	☐	☐
Heroína	☐	☐	☐	☐

26. En el último mes que consumiste drogas, ¿consumiste también alguna de las siguientes sustancias:? *(Marcar una respuesta para cada línea)*

	regularmente	a veces	nunca
Alcohol	☐	☐	☐
Tranquilizantes/sedantes (con receta)	☐	☐	☐
Pastillas para dormir (con receta)	☐	☐	☐
Esteroides (con receta)	☐	☐	☐

Ahora voy a hacerte unas preguntas sobre tu consumo de bebidas alcohólicas durante el último año.

27. ¿Con qué frecuencia consumiste alguna bebida alcohólica?

☐ Nunca ***>>> SALTAR A 30***
☐ Una o menos veces al mes
☐ De 2 a 4 veces al mes
☐ De 2 a 3 veces a la semana
☐ 4 o más veces a la semana

28. ¿Cuantas consumiciones de bebidas alcohólicas realizaste en un día de consumo normal?

☐ 1 o 2 ☐ 3 o 4 ☐ 5 o 6 ☐ De 7 a 9 ☐ 10 o más

29. ¿Con qué frecuencia tomaste 6 o más bebidas alcohólicas en una sesión de consumo (2-4h)?

☐ Nunca
☐ Menos de una vez al mes
☐ Mensualmente
☐ Semanalmente
☐ A diario o casi a diario

AHORA VAMOS A HABLAR DEL MERCADO DE DROGAS

30. ¿Cómo consigues/conseguías las drogas que sueles/solías consumir? *(Marcar una respuesta para cada línea)*

	comprada	gratis	nunca
Tu pareja	☐	☐	☐
Un amigo/a	☐	☐	☐
Un conocido/a	☐	☐	☐
Por internet	☐	☐	☐
Un traficante esporádico	☐	☐	☐
Tu traficante habitual	☐	☐	☐
Un compañero/a de clase o del trabajo	☐	☐	☐
Otro (especificar)	☐	☐	☐

31. ¿Dónde consigues/conseguías las drogas? *(Marcar una respuesta para cada línea)*

	normalmente	a veces	nunca
En tu casa	☐	☐	☐
En casa del traficante	☐	☐	☐
En la calle	☐	☐	☐
En una casa o centro okupa	☐	☐	☐
En un club/discoteca/bar/pub	☐	☐	☐
En un fiesta "*rave*"	☐	☐	☐
En la prisión	☐	☐	☐
En la escuela	☐	☐	☐
En el trabajo	☐	☐	☐
En el cine	☐	☐	☐
En el gimnasio	☐	☐	☐
En el parque	☐	☐	☐
En un centro juvenil (parroquial, de barrio,etc.)	☐	☐	☐
En el estadio/campo deportivo	☐	☐	☐
En una cita por teléfono	☐	☐	☐
Otro (especificar)	☐	☐	☐

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32. Podrias indicar los precios más recientes que conoces, por dosis/gramo/pastilla, e indicar si los precios son de los últimos 12 meses y si sueles comprar o no. *(Marcar al menos una respuesta para cada línea)*

	Precio en euros	¿El precio es de los últimos 12 meses ? No	Sí	No lo sé / no he comprado nunca
Tranqulizantes/sedantes (1 pastilla)	⌊_⌊_⌊_	☐	☐	☐
Éxtasis (1 pastilla) (MDMA)	⌊_⌊_⌊_	☐	☐	☐
Polvo/cristales éxtasis (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Anfetamina (1 pastilla)	⌊_⌊_⌊_	☐	☐	☐
Espid (1gramo)	⌊_⌊_⌊_	☐	☐	☐
Ketamina (1 dosis)	⌊_⌊_⌊_	☐	☐	☐
Marihuana (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Hachís (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Crack (basuco) (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Cocaína de excelente calidad (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Cocaína no de excelente calidad (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Heroína de excelente calidad (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Heroína no de excelente calidad (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
Heroína+Cocaína (1 gramo)	⌊_⌊_⌊_	☐	☐	☐
LSD (1 dosis)	⌊_⌊_⌊_	☐	☐	☐
GHB (1 dosis)	⌊_⌊_⌊_	☐	☐	☐
Metadona (1 pastilla)	⌊_⌊_⌊_	☐	☐	☐
Metadona liquido (1 frasco)	⌊_⌊_⌊_	☐	☐	☐

33. ¿Cómo conseguías normalmente el dinero para comprar drogas? *(Marcar una respuesta para cada línea)*

	Siempre	A menudo	A veces	Nunca
Dinero de la familia	☐	☐	☐	☐
Dinero de la pareja	☐	☐	☐	☐
Trabajo legal	☐	☐	☐	☐
Traficando (vender o pasar droga)	☐	☐	☐	☐
Prostitución	☐	☐	☐	☐
Robo o venta de cosas robadas	☐	☐	☐	☐
Otra actividad ilegal	☐	☐	☐	☐
Venta ambulante (con puesto, camioneta o permiso)	☐	☐	☐	☐
Pedir en la calle, a cambio o no de algo (pañuelos, limpiaparabrisas, espectaculos, etc)	☐	☐	☐	☐
Recoger cosas en la calle (chatarra, carton,etc.) para venderlas	☐	☐	☐	☐
Desempleo, pension o ayuda de la asistencia social/PIRMI,etc	☐	☐	☐	☐
Tomaba prestado	☐	☐	☐	☐
El traficante me fiaba	☐	☐	☐	☐

34. ¿Te ha propuesto alguna vez un traficante que vendas drogas?

☐ Sí, a menudo ☐ Sí, a veces ☐ Nunca

35. Si alguna vez traficaste, ¿cuántas dosis/gramos/pastillas de las siguientes drogas vendías en una semana normal?

Anfetaminas (espid) (pastillas) ☐☐☐☐

Psicofármacos (tranquilizantes/sedantes) (pastillas) ☐☐☐☐

Extasis u otras drogas de diseño (dosis) ☐☐☐☐

Cannabis (marihuana, hachís) (gramos) ☐☐☐☐

Crack (basuco) (gramos) ☐☐☐☐

Cocaína (gramos) ☐☐☐☐

35.(continuación -- Si alguna vez traficaste, ¿cuántas dosis/gramos/pastillas de las siguientes drogas vendías en una semana normal?)

Heroína (gramos) ☐☐☐☐

Setas alucinógenas (gramos) ☐☐☐☐

Ketamina (pastillas) ☐☐☐☐

LSD (dosis) ☐☐☐☐

GHB (Éxtasis líquido) (dosis) ☐☐☐☐

Heroína+Cocaína (gramos) ☐☐☐☐

Metadona (pastillas) ☐☐☐☐

Metadona liquido (frascos) ☐☐☐☐

Otras drogas (especificar) _____ ☐☐☐☐

Nunca ha traficado ☐ ☐ NS/NC

AHORA VAMOS A HABLAR DE LOS POSIBLES CONTACTOS CON ALGUNAS INSTITUCIONES DE DIFERENTE TIPO

36. Desde que empezaste a consumir drogas, ¿te han juzgado o condenado alguna vez por algún delito? (no incluir faltas administrativas) *(Si es necesario, puedes marcar más de una opción)*

☐ No ☐ Sí, por traficar/venta ilegal de drogas ☐ Sí, por otros delitos

37. ¿Te han condenado alguna vez a la pena de prisión?*(Si es necesario, puedes marcar más de una opción)*

☐ No ☐ Sí, por traficar/venta ilegal de drogas ☐ Sí, por otros delitos

38. ¿Te han conmutado alguna vez la prisión por una pena alternativa?

☐ No

☐ Sí, a ingresar en una comunidad terapéutica

☐ Sí, a ser supervisado por un delegado de justicia penal

☐ Sí, a trabajos en beneficio de la comunidad

☐ Sí, a arresto domiciliario

☐ Sí, a hacer un tratamiento en un CAS

39. ¿Cuántas veces has intentado dejar las drogas?

☐ Más de una vez ☐ Una vez ☐ Nunca

40. ¿Has estado en alguna de las instituciones siguientes?
En caso afirmativo, ¿qué edad tenías cuando tuviste tu primer contacto con cada una de ellas y cuánto tiempo has estado utilizando cada una?

	edad	Más de 2 años	Entre 1 y 2 años	Menos de 1 año	No he estado nunca
Albergue	☐☐	☐	☐	☐	☐
Programa de intercambio de jeringuillas	☐☐	☐	☐	☐	☐
Servicios de reducción de daños/centro de calor-café	☐☐	☐	☐	☐	☐
Centros de tratamiento públicos (CAS)	☐☐	☐	☐	☐	☐
Comunidades terapéuticas	☐☐	☐	☐	☐	☐
Centros de tratamiento/ desintoxicación privado	☐☐	☐	☐	☐	☐

RESPECTO A LAS COMUNIDADES TERAPEUTICAS

41. ¿Cuántas veces has estado en una comunidad terapéutica?

☐☐ veces
Si no has estado nunca, salta la siguiente pregunta

42. ¿Por qué ingresaste en una comunidad terapéutica? *(Si es necesario, puedes marcar varias opciones)*

☐ Fue decisión tuya
☐ Era la única manera de alejarte de las drogas y de las malas compañías
☐ Te enviaron desde el CAS
☐ Te convencieron tus familiares / tus amigos
☐ Te obligaron pero no te convencieron
☐ Creíste que sería mejor para tí estar en una comunidad que en la prisión
☐ Otros (especificar) _____
☐ No he estado nunca

Y SOBRE LOS CENTROS DE REDUCCIÓN DE DAÑOS-O CENTROS DE CALOR-CAFÉ

43. ¿Podrías decirnos por qué estás usando o usaste estos servicios ? *(Si es necesario, puedes marcar varias opciones)*

☐ Para conseguir jeringuillas estériles
☐ Para pincharme con más seguridad e higiene
☐ Para comer algo, asearme, etc
☐ Para descansar
☐ Vivía en la calle y no tenía adonde ir
☐ Quería romper con una situación o momento crítico
☐ Quería dejarlo y pensé que contactar con este tipo de servicio sería útil
☐ Otros (especificar) _____
☐ No los he usado nunca

44.¿Alguna vez has participado en alguna formación en grupo o individual sobre cómo prevenir o tratar una sobredosis?

☐ Si ☐ No ***>>> SALTAR A 47*** ☐ NS/NC

45. ¿Cuánto tiempo hace?

☐ menos de 2 años ☐ de 2 a 5 años ☐ Más de 5 años

46. ¿Dónde lo has realizado? *(Marcar más de una cruz si lo has hecho en varios sitios)*

☐ Servicios de reducción de daños/centros de calor-café
☐ Programa de intercambio de jeringuillas
☐ Comunidad terapéutica
☐ Prisión
☐ Centro de tratamiento público (CAS)

47. Durante los últimos 12 meses, ¿has recibido algún tipo de tratamiento psicológico o psiquiátrico fuera de un centro de drogodependencias?

☐ Si ☐ No ☐ NS/NC

VAMOS A HABLAR DE TU VALORACIÓN DE LOS SERVICIOS

48. ¿Cuáles crees que son los tipos de ayuda más útiles para ti? *(Contesta desde 1 para indicar poco/nada útil hasta 5 para muy útil en cada línea)*

	1	2	3	4	5
Asistencia psicológica/psiquiátrica	☐	☐	☐	☐	☐
Asistencia médica	☐	☐	☐	☐	☐
Compartir tus experiencias con otros, en grupo	☐	☐	☐	☐	☐
Volver a llevar una vida ordenada, en comunidad	☐	☐	☐	☐	☐
Acceso legal a fármacos de sustitución, como la metadona	☐	☐	☐	☐	☐
Reinserción laboral/ayuda para encontrar trabajo	☐	☐	☐	☐	☐

49.¿Cómo valorarías los servicios que has utilizado personalmente?
(Contesta desde 1 para indicar poco/nada útil hasta 5 para muy útil, 0 si no lo has utilizado)

	0	1	2	3	4	5
Centros de tratamiento públicos (CAS)	☐	☐	☐	☐	☐	☐
Servicios de reducción de daños/centros de calor café	☐	☐	☐	☐	☐	☐
Albergues para transeúntes; comedores sociales	☐	☐	☐	☐	☐	☐
Programa intercambio de jeringuillas	☐	☐	☐	☐	☐	☐
Comunidad terapéutica	☐	☐	☐	☐	☐	☐
Hospital psiquiátrico/servicios de salud mental	☐	☐	☐	☐	☐	☐
Servicios públicos de asesoramiento psicológico	☐	☐	☐	☐	☐	☐
Servicios privados de asesoramiento psicológico	☐	☐	☐	☐	☐	☐
Médico de cabecera	☐	☐	☐	☐	☐	☐
Centros de desintoxicación privados	☐	☐	☐	☐	☐	☐

LAS SIGUIENTES PREGUNTAS SON PARA VALORAR TU ESTADO DE SALUD, EN SENTIDO AMPLIO

50. ¿ALGUNA VEZ EN TU VIDA te han hecho alguna prueba de hepatitis C de la que sabes el resultado?

☐ Sí

☐ No ***>>> SALTAR A 56***

51. ¿Cuándo te hiciste la ÚLTIMA prueba de hepatitis C? Mes ☐☐ Año ☐☐☐☐ ☐ NS/NC

52. ¿ALGUNA VEZ EN TU VIDA te ha dado positivo una prueba de hepatitis C?

☐ Si

☐ No ***>>> SALTAR A 56***

☐ NS/NC

53. ¿Alguna vez te ha visto un médico especialista (hepatòlogo, medicina interna, ...) para valorar la situación de tu higado ?

☐ Si ☐ No ☐ NS/NC

54. ¿ALGUNA VEZ EN TU VIDA has recibido tratamiento para tu infección de la hepatitis C ? Me refiero a un tratamiento que dura varios meses en el que se requiere siempre la inyección semanal de un farmaco (interferón).

☐ Si ***>>> SALTAR A 56***

☐ No

☐ NS/NC

55. Dices que no has hecho tratamiento, ¿por qué razon ha sido?

☐ No me lo han ofrecido

☐ Han dicho que no era indicado para mi en estos momentos

☐ No he querido

☐ Empecé peró lo tuve que dejar

☐ Otra (especificar) _____

Vamos a hablar ahora del virus del SIDA

56. ¿ALGUNA VEZ EN TU VIDA te han hecho una prueba para valorar el virus del SIDA de la que sabes el resultado?

☐ Sí

☐ No ***>>> SALTAR A 62***

57. ¿Cuándo te hiciste la ÚLTIMA prueba para el virus del SIDA?

☐☐ Mes ☐☐☐☐ Año ☐ NS/NC

58. ¿ALGUNA VEZ EN TU VIDA te ha dado positivo la prueba para el virus del SIDA?

☐ Si

☐ No ***>>> SALTAR A 62***

☐ NS/NC

59. ¿Alguna vez te ha visto un médico especialista (medicina interna, ...) para valorar este enfermedad?

☐ Si ☐ No ☐ NS/NC

60. ¿ALGUNA VEZ EN TU VIDA has recibido tratamiento ANTIRRETROVIRAL contra el virus del SIDA? Me refiero a un tratamiento para VARIOS AÑOS, en el que hay que tomar cada día VARIAS pastillas que te dan en el hospital, ya que no se venden en la farmacia.

☐ Si ***>>> SALTAR A 62***

☐ No

☐ NS/NC

61. Dices que no has hecho tratamiento, ¿por qué razon ha sido?

☐ No me lo han ofrecido

☐ Han dicho que no era indicado para mi en estos momentos

☐ No he querido

☐ Empecé peró lo tuve que dejar

☐ Otra (especificar) _____

62. Durante los últimos 12 meses, ¿alguna vez pensaste que sería mejor si estuvieras muerto/a?

☐ Si ☐ No ☐ NS/NC

63. Durante los últimos 12 meses, ¿pensaste en suicidarte?

☐ Si ☐ No ☐ NS/NC

64. Durante los últimos 12 meses, ¿hiciste algún plan para suicidarte?

☐ Si ☐ No ☐ NS/NC

NOS GUSTARIA QUE NOS HABLARAS SOBRE LAS POSIBLES EXPERIENCIAS DE VIOLENCIA VIVIDAS EN LOS ÚLTIMOS 12 MESES.

65.- Durante los últimos 12 meses, ¿cuántas veces has sido atacado o has recibido golpes, pinchazos, cortes, quemaduras u otras lesiones causadas por cualquier clase de arma (incluyendo armas de fuego, cuchillos, botellas de cristal, palos, porras, etc.)?

|_|_| veces. S*i la respuesta es 0 veces, >>>**SALTAR A 67***

66. ¿Quién de las siguientes personas te atacó con un arma en los últimos 12 meses? *(Puedes indicar más de una persona si es necesario)*

- ☐ Cónyuge o pareja
- ☐ Padre o madre
- ☐ Hijos, hermanos u otros familiares
- ☐ Amigos o conocidos
- ☐ Personas implicadas en el tráfico de drogas
- ☐ Clientes sexuales
- ☐ Vecinos del barrio
- ☐ Policía
- ☐ Otros desconocidos ☐

67. ¿ Durante los últimos 12 meses, ¿cuántas veces has recibido algún tipo de agresión física en la que no haya sido utilizada ningún arma (te han pegado, empujado, golpeado...)?

|_|_| veces. S*i la respuesta es 0 veces, >>>**SALTAR A 69***

68. ¿Quién de las siguientes personas te causó alguna agresión física en los últimos 12 meses? *(Puedes indicar más de una persona si es necesario)*

- ☐ Cónyuge o pareja
- ☐ Padre o madre
- ☐ Hijos, hermanos u otros familiares
- ☐ Amigos o conocidos
- ☐ Personas implicadas en el tráfico de drogas
- ☐ Clientes sexuales
- ☐ Vecinos del barrio
- ☐ Policía
- ☐ Otros desconocidos ☐

69. ¿ Durante los últimos 12 meses, ¿cuántas veces has sido víctima de algún tipo de agresión o abuso sexual (te han forzado a tener relaciones sexuales cuando no querías, o te han obligado a hacer algún acto sexual que consideraste desagradable)?

|_|_| veces. S*i la respuesta es 0 veces, >>>**SALTAR A 71***

70. ¿Quién de las siguientes personas te agredió sexualmente o abusó sexualmente de ti en los últimos 12 meses? *(Puedes indicar más de una persona si es necesario)*

- ☐ Cónyuge o pareja
- ☐ Padre o madre
- ☐ Hijos, hermanos u otros familiares
- ☐ Amigos o conocidos
- ☐ Personas implicadas en el tráfico de drogas
- ☐ Clientes sexuales
- ☐ Vecinos del barrio
- ☐ Policía
- ☐ Otros desconocidos ☐

71. ¿ Durante los últimos 12 meses, ¿cuántas veces has sido víctima de alguna forma de maltrato psicológico (como ser insultado o humillado ante otras personas, o recibir gritos y amenazas)

|_|_| veces. S*i la respuesta es 0 veces, >>>**SALTAR A 73***

72. ¿Quién de las siguientes personas te maltrató psicológicamente o te amenazó en los últimos 12 meses? *(Puedes indicar más de una persona si es necesario)*

- ☐ Cónyuge o pareja
- ☐ Padre o madre
- ☐ Hijos, hermanos u otros familiares
- ☐ Amigos o conocidos
- ☐ Personas implicadas en el tráfico de drogas
- ☐ Clientes sexuales
- ☐ Vecinos del barrio
- ☐ Policía
- ☐ Otros desconocidos ☐

73. Durante los últimos 12 meses, ¿cuántas veces agrediste físicamente a otra persona (atacaste a alguien con un arma, pegaste, empujaste o golpeaste a alguien)?

|_|_| veces. *Si la respuesta es 0 veces, >>>**SALTAR A 75***

74. ¿A quién de las personas siguientes agrediste físicamente en los últimos 12 meses?
(Puedes indicar más de una persona si es necesario)

- ☐ Cónyuge o pareja
- ☐ Padre o madre
- ☐ Hijos, hermanos u otros familiares
- ☐ Amigos o conocidos
- ☐ Personas implicadas en el tráfico de drogas
- ☐ Clientes sexuales
- ☐ Vecinos del barrio
- ☐ Policía
- ☐ Otros desconocidos ☐

Y, PARA ACABAR, ¿Nos podrías dar información sobre tu situación personal, familiar y laboral, en los diferentes periodos de tiempo señalados que procedan?

	Cuando empezaste a consumir	Alrededor de los 25 años	Alrededor de los 35 años	En la actualidad
75. ¿Cuál es/era tu estado civil?				
Soltero	☐	☐	☐	☐
Casado/vivía en pareja	☐	☐	☐	☐
Divorciado/viudo	☐	☐	☐	☐
76. ¿Vives/vivías con tus hijos? (si no tienes/tenías, marca 'No procede')				
Si	☐	☐	☐	☐
No	☐	☐	☐	☐
No procede	☐	☐	☐	☐

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77.¿Dónde y cómo vives/vivías?	Cuando empezaste a consumir	Alrededor de los 25 años	Alrededor de los 35 años	En la actualidad
Solo en tu propia vivienda	☐	☐	☐	☐
Con tus padres u otros familiares	☐	☐	☐	☐
Con tu mujer/marido, pareja	☐	☐	☐	☐
Con amigos/conocidos	☐	☐	☐	☐
En la calle	☐	☐	☐	☐
Okupa	☐	☐	☐	☐
Hotel/hostal/pensión/albergue	☐	☐	☐	☐
Centro terapéutico	☐	☐	☐	☐
Prisión o centro de menores	☐	☐	☐	☐

78. ¿Cuál es/era tu situación laboral? *(Sólo una respuesta)*	Cuando empezaste a consumir	Alrededor de los 25 años	Alrededor de los 35 años
Estudiante	☐	☐	☐
Trabajo fijo a jornada completa	☐	☐	☐
Autónomo o profesional liberal	☐	☐	☐
Trabajo a tiempo parcial	☐	☐	☐
Contrato temporal	☐	☐	☐
Nunca ha trabajado	☐	☐	☐
En el paro (con o sin pensión)	☐	☐	☐
Incapacidad laboral permanente	☐	☐	☐
Pensionista	☐	☐	☐
Trabajo en el hogar	☐	☐	☐
Otro (especificar)	☐	☐	☐
	_____	_____	_____

OBSERVACIONES _____ →

ENTREVISTADOR |_|_|_| No procede ☐