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"It saved my life three times":

Attitudes and perceptions of Harm Reduction in drug treatment:

Decoding peer distribution of naloxone in Catalonia, Spain

Dissertation submitted by

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ABSTRACT

Drug overdose has become a major health issue of discussion in Europe. Among the overdoses that occur, the majority of them lead to death, with opioids being one of the most common substances that account for drug-induced deaths. To mitigate drug overdose deaths, a wide range of harm reduction strategies has been implemented through drug policies. One of the strategies that have been implemented is naloxone. So far, some existing literature on drugs has argued that naloxone is a potential enabler of substance use. Most of the literature based on this claim was evaluated from a quantitative perspective. In response to this gap, an inductive analysis through a qualitative study was conducted in Catalonia, Spain, to examine substance users and harm reduction professionals' attitudes towards naloxone distribution and the challenges in implementing the naloxone program. This research argues that the naloxone program is good harm reduction that saves lives, however, implementing it may be challenging due to stigma and low-risk perception for an overdose to occur. The results of this study have a key implication on public policy. This paper highlights gender mainstreaming and public education as a policy approach to implementing the naloxone program.

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CHAPTER ONE: INTRODUCTION

1.1 Background

While on a vacation trip in 2019, in Spain, I went all about visiting places in Barcelona which is undoubtedly one of the most populated and touristic cities in Spain with higher levels of drug consumptions. During one of my trips in La Rambla—a famous tourist site, I saw a lot of people gathered around in a corner, and just to satisfy my curiosity, I drew closer to witness what was happening, and to my surprise there lay a man in a helpless condition. Although a lot of people had gathered around him, no one was willing to touch or help him—probably because they didn't know how they could help, or didn't want to intervene. I stood there in amazement and all that I could hear was "recibió una sobredosis pero no pudimos evitarlo, ya está muerto, llamemos a la ambulancia"—translated into the English language, "he got overdosed but we couldn't help, he's already dead, let's call the ambulance". To my surprise, the man had died as a result of a drug overdose. Witnessing this scene sent me into deep thinking that, perhaps, his life could have been saved if there was naloxone to reverse the effects of the overdose.

In the last decade, Europe has witnessed an increase in drug-related death—and remains a key health issue in Europe. According to the European Monitoring Center for Drugs and Drug Addiction (EMCDDA) report in 2015, each year, approximately 6,300-8,000 opioids induced death occurs. While it is estimated that between 6000-8000 people die annually from opioids, the number keeps increasing as the years go by—as a result of the new trends of drugs emerging. The EMCDDA 2019 report on drug-related death and mortality revealed that over 9,400 lives were lost to drug overdose in 2017. Among the number of lives that are lost to overdoses annually, it is estimated that males are more likely to die from an opioid overdose compared to women. For instance, in 2016, opioid overdose death among males within the ages of 35-39 was 57.4 deaths per million, whereas females (age 40-44), accounted for 12.4 deaths per million

for females (EMCDDA, 2016). While Lim et al. (2012) found drug use as a major risk factor for negative health effects such as hepatitis C, endocarditis, and HIV/AIDs which may lead to death, Corrigan et al. (2003) find suicide as a risk factor among opioid dependant users.

The World Drug Report estimated that the number of people who use illicit drugs is between 155 and 250 million in 2010 which accounted for 3.5 to 5.7 percent of the worldwide population (UNODC, 2010). Despite these alarming statistics, only about 4.9 million or approximately 1.9 percent of people can access treatment and care for drug dependence (UNODC, 2009). The effects of drug use across the world cannot be exaggerated. In 2010, illegal drug use reckoned between 0.5 percent and 1.3 percent of all specific types of death and this occurred among persons between the ages of 15-64. According to UNODC (2012), in 2011 about 0.7 percent of illegal drug use accounted for all-cause of disability. While drug abuse has been revealed to be a precursor to overdose deaths and other health problems, many countries still experience a high increase in drug consumption. One such country is Spain.

Currently, there is paucity in the literature on naloxone especially on Spain despite the significant role naloxone plays in reducing overdose fatalities. Most research on harm reduction emphasizes on drug consumption rooms, HIV and needle, and syringe exchange. Hence, this study contributes to the existing literature by examining the perceptions of substance users and professionals in the provision of naloxone. More so, drug use and Opioids related death are still prevalent hence, it was important to examine challenges faced in implementing naloxone as it is one of the harm reduction strategies in Spain. Again, this study is theoretically and practically relevant since the perspectives of persons who use drugs are very crucial to understanding why people decide to reduce the risks associated with drug use. The study also emphasizes the environmental and social elements that impede the use of harm reduction services and what practices are preferred in conceptualizing harm reduction. The study concludes that

policymakers should factor gender-sensitive services to enhance easy access to harm reduction programs.

This thesis has been divided into five chapters. The first chapter focuses on the background of the study, the second focuses on theoretical models of harm reduction, existing literature on attitudes and perceptions towards naloxone, and the barriers in implementing the naloxone program. The third chapter is the research methodology and methods and the fourth chapter highlights the analysis of the findings. The final chapter discusses the findings of the study, policy recommendations, and conclusion.

1.2 Evolution of the Spanish drug policy

In the 1980s, drug issues gained much prominence in the public domain due to the social alarm created by the increase in drug-related crimes and heroin (Pares & Bouso, 2015). Despite the domestic nature of drug use, Spanish drug policies have not disregarded the uniformity of drug policy that occurred since the inception of the International Drug Control System—particularly, the ratification of 1961, UN Single Convention on Narcotic Drugs. Currently, Spain is a member of all three international drug control protocols and has ratified these conventions. In the late 1960s, the national structure on drugs started to shape when the domestic laws required that it complies with the UN drug protocols of 1961 and 1971 (Sanchez, 2017). The domestic laws by then were the law of Narcotics 17/1967 and the Royal Decree 2829/1977 which primarily focused on the regulation of psychotropics.

However, the developments of institutional facilities on drug policy commenced in 1984, under the auspices of the Socialist Government led by Felipe Gonzalez, who accepted a legislative proposal to develop the National Plan on Drugs (Sánchez & Collins, 2018). Officially, the National Plan on Drugs (PNSD) was established in 1985 which was devised as an institution both in the autonomous cities and the central government under the jurisdiction

of the Ministry of Interior or the Ministry of Health based on the existing approach at any time (Quintero, 2011). The delegation for the PNSD has led and coordinated all issues on Spain's drug policy ever since the national plan was developed. The drug policy focuses primarily on treatment, demand reduction policies, rehabilitation, prevention, and harm reduction programs based on its integration with the ministry of health. The implementation of the National Drug Plan marked the genesis of a coordinated strategy for interventions in health and social issues about drug use. The framework in which the national plan was developed was influenced by the rise of drug trafficking—especially cocaine and heroin, scarcity of statistical and reliable data on drug users and drug use and the emphasis on heroin as the drug with the greatest impact on public health which is strongly connected to the rise in HIV and drug injection use. Based on the rise of heroin and its implications on health, the first drug approach adopted has been portrayed as heroin-centric.

Presently, the drug plan seeks to provide effective and quality assistance to substance users to ensure the delay and restriction on the age at which people gets into contact with drug and alleviate the risks associated with drug use while facilitating the social integration of drug users (Spain Drug Report, 2017). As part of the measures taken to address the drug problem in Spain, take-home naloxone was implemented as a harm reduction strategy to provide assistance to drug users and reduce drug-related death.

1.3 Naloxone as a harm reduction service

Naloxone is an opioid antagonist that counters the effects of substance overdose. It disallows depression of the respiratory system and the nervous system while altering the probability of an overdose to result in death. Naloxone can be administered in an injectable form (intramuscular and intravenous) or intranasal spray. Throughout history, access to naloxone was restricted to medical professionals; however, before its acceptance as a harm reduction approach in the 1980s, any emergency service staff could administer it. In 2014, the

World Health Organization (WHO) listed naloxone as a vital drug, critical for survival, and capable of saving lives. Therefore, the WHO recommended an expansion in the accessibility and availability of naloxone among bystanders who are likely to witness opioid overdoses (WHO, 2014). Following the recommendation by the WHO, most governments have begun to increase the availability and accessibility of naloxone. The increase in availability and accessibility was to enable bystanders and witnesses to save lives when there is an overdose (Strang. et al., 2016) in line with the WHO's recommendation. Regardless of its acceptance by the WHO as emergency medicine, naloxone is only available in one-third of European countries. (EMCDDA, 2019).

To reduce drug-induced mortality, overdose training programs such as naloxone were developed to train opioid users, their peers, and potential bystanders on how to recognize and respond to overdoses. Currently, the European Union action plan on drugs, (2017-2020) has included access and provision of naloxone as a strategy to reduce drug-related mortality. The idea of peer-distribution of naloxone makes it possible for peers and bystanders to administer naloxone in case of an overdose without personal or medical prescription. While naloxone is deemed useful, other scholars (Doleac & Mukherjee, 2018) have argued that naloxone may accidentally encourage opioid abuse.

Over the years, attitudes towards opioids and other illegal drugs have generated complicated responses in society (Alford et al., 2010). Given the effects associated with illicit drug use, and its health implications, illegal drug use has been the fulcrum of discussion where a majority have argued that using an illicit drug is a personal choice and the biological makeup of the individual (Healthy people, 2013). These arguments may lead to the disregard of providing help to dependent drug users and those with substance use disorders. Many researchers have explored physicians' attitudes towards treatment services for substance users (Gilchrist et al., 2011; Herbeck et al., 2008; van Boekel et al., 2013). For instance, Gilchrist et

al. (2011) used a multi-center cross-sectional comparative study to differentiate health professionals' attitudes toward working with diverse patients' groups including substance users. The study was conducted in eight European countries and they found that the regard for alcohol and drug users by health professionals was continuously lower than for other patients who do not fall into the alcohol and drug users' category.

Kalebka, et al. (2013) used a prospective survey to explore urgency departments in South African hospitals to evaluate health care providers' attitudes towards substance addictive disorders and their level of exposure to substance-related treatment. The researchers found that, although health professionals are willing to initiate therapeutic interventions for substance abusers, more training in drug dependence might be beneficial for them. The prevalence of negative perceptions and attitudes towards drug users may be unpleasant, as it decreases the individual's commitment, willpower, and the chance of seeking treatment. This may retard the treatment process and may also delay the re-integration and recovery of the individual into the family and the community (van Boekel et. al., 2014). This study was more important as there is paucity in the literature on the attitudes and perceptions of drug users and harm reduction professionals in Spain. With naloxone as the fulcrum of study, this research intends to unfold attitudes towards harm reduction in Spain.

The WHO defines substance abuse as the harmful use of illicit drugs, alcohol, and psychoactive substances. Psychoactive substances use may lead to dependence syndrome—a group of cognitive, behavioural and physiological effects developed after frequent use of substances which typically include difficulties in controlling its use, a strong desire to consume drugs, a primary concern given to drug use than other activities, continuous use of drugs regardless of the hazardous consequences and at times physical withdrawal. Thus, substance use /drug use in this study refers to the harmful use of any psychoactive substance which may lead to substance dependence.

1.4 Problem Statement

In recent years, opioids related death has increased significantly in Spain, perhaps as a result of an increase in population and polydrug use—the use of combined substances to achieve a specific effect. It has been estimated that almost 300,000 people have a lifetime history of injecting drugs in Spain (Roncero et. al., 2017). Currently, approximately 150,000 people in Spain have Substance Use Disorder (SUD) with the majority of them who still inject drugs. Although almost 80,000 of these people enrol in treatment annually, a significant part of them still injects drugs. Apart from this, a study by "first-of-its-kind" revealed that drug-related fatalities in Spain have increased to more than 50% in the last seven years (Güell, 2019)—with opioid overdose causing more than 1,000 death per year. Due to the tenacious availability of illicit substances in Spain, and the increasing rate in drug-related mortality, the Spanish government implemented harm reduction strategies such as take-home naloxone, needle and syringe programs, and drug consumption rooms to help reduce the risk of substance use. Given the national approach that has been adopted to tackle the drug problem by the Spanish government, it was necessary to explore the perceptions and attitudes of professionals and substance users on the harm reduction strategy. Naloxone distribution was chosen to be explored since it is one of the most widely used strategies in Catalonia. Apart from this, it was important to explore the perceptions of naloxone and the efficacy of harm reduction strategies in the Spanish context. Importantly, given the arguments surrounding the notion of providing help and treatment for substance users, it was necessary to explore the perceptions of harm reduction services in Spain while unfolding the challenges encountered in providing these services.

Figures, 1 and 2 below show the type of drugs used mostly in Catalonia and the trends of drug-related deaths.

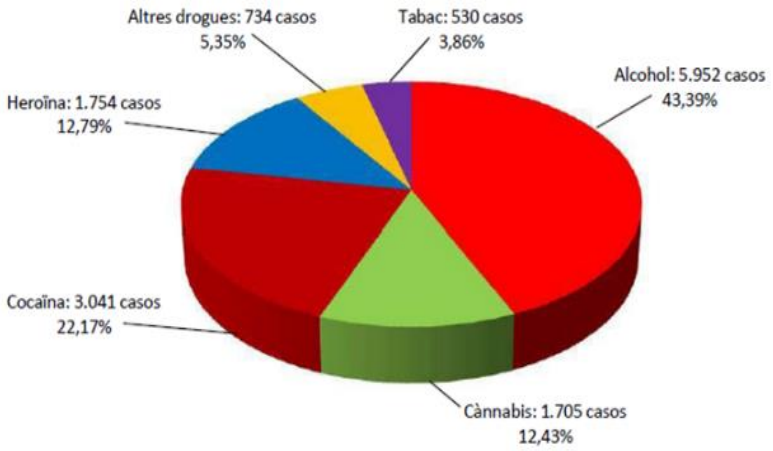

Figure 1: Primary drugs causing requests for treatment.

Source: The drug dependence information system in Catalonia(SIDC): Annual report 2017.

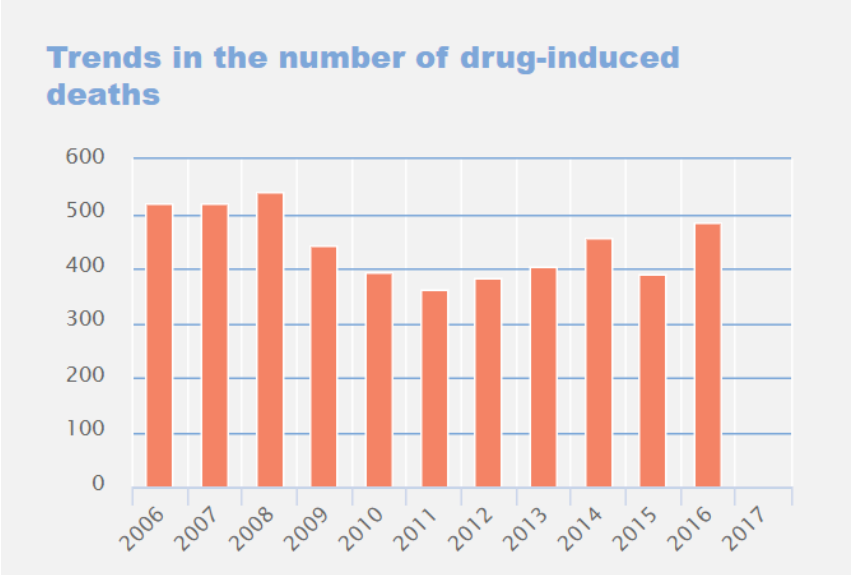

Figure 2: Trends in drug-related Death. NB: Year of data is 2016

Source: Spain Country Drug Report 2019.

1.5 Research questions and hypotheses

To examine the attitude and perceptions of professionals and substance users towards naloxone, in this study, I explored these research questions and hypotheses. These hypotheses were

formulated based on existing studies (Bunk et al., 2017) on barriers and attitudes towards naloxone distribution. These are:

(1) what are the attitudes and perceptions towards peer distribution of naloxone as a harm reduction strategy?

H1: professionals have positive attitudes and perceptions toward naloxone distribution although drug overdose mortality remains.

(2) what are the implementation barriers of naloxone distribution?

H2: Stigma remains a huge barrier that prevents substance users from accessing harm reduction services.

1.6 Significance of the study

This research is very relevant from both a theoretical and a practical point of view. Although a lot of literature has explored attitude towards harm reduction, naloxone distribution has not been fully explored. The majority of the literature on harm reduction focuses particularly on methadone treatment, syringe exchange, and the link between harm reduction and HIV. Presently, naloxone has not been fully explored as a harm reduction strategy in Spain. This current study was vital to understand the perspective of professionals and drug users about naloxone in Spain. Thus, this research aims to throw more light on the attitude and perceptions of naloxone in drug treatment.

Opponents to harm reduction argue that harm reduction programs enable and encourage substance users to continue consuming drugs other than abstaining from drugs (Doleac & Mukherjee, 2018). One way to ascertain whether this could be true is by research. For example, this research would add to existing knowledge by examining whether people who participate in the naloxone program end up taking more drugs or reduce their intake. The research further

seeks to explain and understand the perspectives of drug users and professionals based on the theoretical models underpinning drug use and intervention. The findings of the research are intended to support research data for governments, non-governmental organizations, and policy-makers to get an in-depth understanding of users' and professionals' opinions on naloxone distribution. The study will also serve as a guide and a source of information in promoting and implementing policies and intervention programs towards solving the drug problem in Catalonia.

1.7 Definition of key terms

Attitude: A way of feeling or thinking about something

Perception: how something is understood, interpreted, or regarded.

Harm Reduction: Harm reduction is a practical approach that acknowledges that people who cannot abstain from substance use can make positive choices and informed decisions to safeguard their health, that of their families, friends, and communities.

CHAPTER TWO: LITERATURE

2.1 Literature Review and Theoretical Models

This chapter will focus on the theoretical models that underlie substance use and intervention and how these models have been embedded in the EU's drug strategy. It will further review existing studies on attitude towards naloxone and the challenges in its implementation as a harm reduction strategy.

2.2 Harm reduction in Europe

In the United States, abstinence-based programs appear to be more embraced as a treatment option and this was no different in Europe at a point in time where drug policy was focused on abstinence. However, following the failure of the *War on drugs* in most European countries, drug policy in Europe shifted towards an "acceptance" paradigm and this has been in existence for the last 20 years (Bollinger, 2002). According to Bollinger, the acceptance model agrees that society cannot be free of drugs, therefore self-gratifying and recreational consumption of drugs has to be accepted to some extent. Also, it is equally feasible to differentiate between the risky and non-harmful use of drugs. The acceptance paradigm may mean that little quantity of drugs may be used and accepted whereas the harmful ones are not acceptable. Thus, through the law, almost all the European countries have lessened the sanctions of possessing and using a small number of illegal drugs (Bollinger, 2002). Some European countries have been very dynamic in handling the drug situation by recognizing the "acceptance approach*"* through harm reduction as a response to drug use.

In harm reduction, the ultimate goal is abstinence if only a person wants to abstain from substance use whereas abstinence-based models require total abstinence as an approach to treatment. Generally, people who have substance use problems face challenges in accessing and maintaining abstinence from drugs and alcohol (Mancini et al., 2008). To successfully and

completely abstain may not be possible for a person with a substance-dependent problem. Thus harm reduction does not necessarily compel people to limit or abstain from drug or alcohol use; instead, it attempts to ameliorate the negative results of drug use (Christie et al., 2008)—on the individual and the society as a whole. It provides an opportunity and accepts that some people are just unwilling or unable to abstain from substance use. While the most desirable outcome in harm reduction is ending drug use(abstinence), harm reduction varies from the traditional abstinence model since it does not prioritize abstinence as the only treatment goal for providing services (Mancini et al., 2008). Harm reduction therapy regards treatment as one that involves all the aspects of a person's life and not only the mental health or substance use per se (Marlatt et al., 2001). Similarly, the biopsychosocial model in substance use takes a holistic approach in providing beneficial treatment to clients. In the same vein, Marlatt and Witkiewitz (2002) posit that harm reduction gives a non-stigmatizing, easy access, low threshold, and flexible treatment alternatives with different goals to care for the needs of clients.

The European Union has made it a priority to secure a political commitment to harm reduction on the basis that harm reduction is cost-effective (EMCDDA, 2010). Although HIV infections are reducing in Western and Central Europe, they are increasing in the Eastern part of the region which could be correlated with the inadequate accessibility of harm reduction services due to laws preventing medication-assisted treatments and political focus on law enforcement (EMCDDA, 2010). A meta-analysis of methadone maintenance treatment (MMT) revealed that in Germany, Australia, and Sweden, the MMT reduced a 75% risk of death (EMCDDA, 2010). Another study on Chicago peer naloxone distribution program revealed that, although there was a fourfold increase in heroin overdose death between 1996-2000, prior to the implementation of harm reduction services, the overdose death trend decreased by 20% after the implementation of harm reduction services (EMCDDA, 2010). Harm reduction services are therefore considered less expensive but with higher impacts. In essence, its

implementation is inexpensive but has a measurable and high impact on public health and the individual.

2.3 Substance use and interventions: theoretical models

Temperance model

Generally, four theoretical frameworks are used to conceptualize addiction and substance use behavior. One of the oldest models established to respond to substance use was the temperance model. Between 1825 and 1826, the increase in alcohol consumption became a strong cause for a movement among the American middle-class (Levine, 1984). The vow to cease alcoholism, help in the campaign of mass education, and attend temperance meetings formed the temperance theory used in practice today (Onni, 2006). According to Levine (1984), temperance groups were formed to drive away from the demons of alcohol to protect middle-class households, women, children, and reduce poverty and crime rates. This approach was known for its prohibition and enforcement methods.

Disease Model

The disease model began in the US between the 1930s and 1940s (Miller & Kurtz, 1994). This model began with Benjamin Rush, a physician who had an unwavering belief that alcoholism is a sickness. According to the disease model, people who abuse substances are powerless to defend themselves. Therefore they are incapable of making sound decisions and choices, and they need social interventions to compel them into abstinence and treatment (Miller & Kurtz, 1994). The disease model regards addiction as a genetic pathology with related behavioral symptoms such as drug-seeking and cravings (Garlitz, 2007). The model supports harm reduction as the major goal of substance use, prevention, and abstinence as the appropriate treatment goal (Marlatt, 1996). Harm reduction can, therefore, be seen as an approach that regards substance uses as a disease. Currently, the disease model is the exclusively used model

for drug treatment in Europe and the United States. However, others have argued the disease model encourages substance dependency (Christie et al., 2008). The dependency problem of the model could be true due to the ideology that persons with substance use problems are not capable of making sound judgments and decisions on their own, as they may likely be irrational. Thus, people who take care of substance abusers must take absolute control over the person's rights, and choices until abstinence is attained.

Moral Model

The moral model of drug use is associated with the belief that people who do not observe and obey what society regards as acceptable cannot be morally upright and good (Garlitz, 2007). The model also posits that such people cannot contribute to the productivity of the community and the family. In essence, a person suffering from substance dependency is seen to be a violator of societal norms or rules. According to Marlatt et al. (2001), persons who engage in harmful drug use are warned to stop abusing drugs, act in a socially appropriate manner, and take absolute control over their lives. Similarly, Miller and Kurtz, (1994) assert that moral judgment is passed on to people who have substance use problems with the knowledge that substance use is a personal choice and such people are intoxicated by their behaviors. According to the moral model, substance users wilfully violate social rules through their immoral choices and must be penalized or persuaded spiritually to abstain from substance use. In the same vein, Brickman et al. (1982) posit that treatment associated with the moral model includes imprisonment, spiritual persuasion, and the will power for personal control to be sober and return to the society. Apart from this, one of the renowned approaches adopted to tackle the world drug problem was the '*War on drugs'*[1] which recognized substance use as social evil other than a public health issue (Marlatt et al., 2001). Currently, society serves as the custodian

[1] 'War on Drugs' was formulated by former U.S President Nixon in 1972. It began as a campaign by the US government and extended to other countries which contended that drug use is a "danger" (Mountain, 2013, 53)

for the moral model through the justice system which has implemented sanctions for drug-related crimes. Both the civil and the criminal justice system presently punish and blame persons who commit an offense under the influence of substance use (Miller & Kurtz, 1994) and regard such people as criminals who must face prosecution(Marlatt et al., 2001). The assumption underlying punishing illegal substance distributors and users is that substance use is morally unacceptable. Hence, as of 2010, almost 635, 000 people in the European Union were imprisoned for illegal substance use (Aebi & Delgrande, 2014).

Biopsychosocial model

Under this model, proponents emphasize the psychological, biological, and social aspects that affect and sustain drug treatment (Wiltsek, 2004). According to Wiltsek, this model incorporates all three aspects when seeking to understand the causes and treatment for substance use and stresses the importance of considering all these dimensions when working with people with substance use problems. Apart from this, the model provides a holistic approach to treatment services. According to some researchers, the psychosocial model intervention can promote behavior change among substance users(Hubbard et al., 1997). In this model, the longer a person remains in treatment, the better the person's long-term prognosis becomes. This model, therefore, acknowledges the complexity and diversity of substance dependence, as well as the negative and positive effects treatment, can have on a person. (Kyser, 2010).

Although all the above-mentioned models have different views, there is a bit of similarity. For instance, the moral and the temperance model are similar such that "morality" plays a key role in tackling substance use. The temperance movement calls alcoholism "demonic" which suggests that alcohol is bad. Thus, if alcohol is wrong or bad, then people who consume alcohol are immoral or bad. On the other hand, the biopsychosocial model includes an aspect of each of the models into one (Margolis & Zweben, 1998), while individualizing treatment for people who may seek it. Especially, the biopsychosocial model

draws on the moral model as it explores the social circles of an individual in treatment. For example, while exploring a person's treatment, the cultural, social, and family life are taken into consideration, such that issues regarding a substance user's relationship with society and how the society the person comes from regards substance use, may be examined during the treatment process.

Temperance model	Disease Model	Moral Model	Biopsychosocial model
• Emerged as a movement in response to alcohol abuse • Regard alcoholism as devilish and it can be dealt with through public education and abstinence • Enforces temperance to protect children, women decreases poverty and alcohol-related crimes activities	• Substance use/alcoholism is a disease • Persons who abuse substances are sick and need treatment • Regards drug addiction as a biological/genetic pathology • Substance abusers are defenceless • Supports reduction as a crucial goal of prevention and abstinence as the ultimate goal for treatment • Diseases could be treated medically	• Regards substance abusers are immoral who cannot be useful in society • Substance use is a violation of societal regulations • Substance use is a choice hence abusers must take control of their lives and stop abusing drugs in order to act morally upright • Associated with passing moral judgment and recognizes substance use as evil • Possible treatment for substance use include moral persuasion, imprisonment, and spiritual guidance	• Emphasize on psychological, social and biological aspects to sustain drug and alcohol treatment • This model focuses on the importance of these three aspects to understand the causes and treatment of substance use • Environmental and social factors play a role in substance use • The biopsychosocial model acknowledges that alcohol problems are diverse based on metabolism, brain sensitivity, and genetic tolerance.

Figure 3: Summary of substance use theories.

In reviewing the existing literature, it can be inferred that Europe has accepted that people will always use drugs whether they are legal or not. Therefore, since people will use drugs at all costs, Europe adopted a strategy that makes drug use safer and assists individuals to access treatment instead of imprisoning them. Presently, the disease model is almost a widely used method in Europe for drug treatment. Thus, from a disease/medical approach, I examine the attitude and perception of harm perception of naloxone as a harm reduction strategy. Based on the disease model, the analysis of this study may uncover what drug users and professionals think of harm reduction as a conventional drug policy in Spain. For this reason, my research builds on existing but limited scholarship on Catalonia's harm reduction programs and offers

an in-depth understanding and perceptions of providers' and substance users' observations of naloxone.

2.4 Attitudes and perceptions towards naloxone

Although naloxone kits are now available for substance users to obtain, the role of physicians, pharmacists, and harm reduction professionals should not be discredited in the quest to reducing opioid-related mortality. Raisch et al. (2005) conducted a cross-sectional attitudinal assessment on pharmacists' and technicians' perceptions towards distributing naloxone and they discovered that 70% of the respondents strongly agreed that, naloxone should be dispensed to opiate-dependent people, whereas only 5% were against this statement. Again, 85% of the pharmacist believed that naloxone is a new and crucial treatment alternative for opiate dependent clients. Similarly, Bunk et al. (2017) used a non-experimental descriptive study to determine baseline knowledge and perception of Pennsylvania's pharmacists' attitude towards naloxone and they found that pharmacists agreed that they are very likely to engage in naloxone distribution and counselling.

Apart from this, the pharmacists mentioned that naloxone education should be incorporated into pharmacy school curricula to facilitate improved knowledge of naloxone distribution. Thus, based on their results, it is clear that pharmacists have positive perceptions about naloxone. Also, Nielsen et al. (2018) conducted a prospective cohort study about knowledge of opioid overdose and attitudes towards take-home naloxone among persons with chronic non-cancer pain in Australia and they concluded that most of the participants had positive attitudes toward take-home naloxone, however, they had little knowledge about opioid overdose symptoms.

With regards to opioids users perception towards naloxone, Artigiani (2019) conducted open-ended interviews with active injection drug users in Cuyahoga County and it was revealed

that the majority of the participants regarded naloxone positively and referred to it as a "lifesaver" which every dependent drug user should possess. Furthermore, the participants were asked whether naloxone has an influence on their drug use behavior patterns and most of the participants revealed that naloxone does not affect their daily drug use. Whereas some respondents viewed naloxone as a lifesaver, most of the participants also mentioned that they feel comfortable and safe in using drugs due to the availability of naloxone. Similarly, Wright et al. (2006) conducted face-to-face interviews with homeless drug users awareness and risk perception of take-home naloxone in the United Kingdom and they found that many homeless drug users had a positive attitude and were motivated to get involved in peer distribution of naloxone. Apart from this, the authors examined the possibility of whether high-risk users would be willing to carry naloxone and administer it in case there is an overdose. The authors found that most users were willing to carry it as they view naloxone as an antidote to bring back life. Although most substance users and health workers may have a positive attitude towards naloxone, implementing naloxone may be challenging for governments.

2.5 Implementation barriers to the naloxone distribution

Implementing naloxone as a harm reduction service can be very challenging. Taking into consideration regulatory and legal boundaries., Winstanley et al. (2016) conducted a cross-sectional survey in Ohio to examine the implementation challenges of opioids overdose prevention and they revealed that stigma-related challenges were one of the major barriers. According to Livingston et al. (2012), stigma can be explained in three different ways as it manifests on social, self, and structural levels. Self-stigma entails a feeling of shame whereby a person internalizes public stereotypes by applying the public stigma to one's self. It may include a person's attempt to conceal this stigmatized idea of oneself for the fear of negative attitudes and reactions from others. Social stigma describes how the public reacts to the stigmatized population-based on stereotypes whereas structural stigma includes policies, rules,

and procedures that affect the stigmatized population which portrays how this stigmatized population should be regarded and treated (Livingston et al., 2012). Stigma is mostly used as a tool to degrade behaviors like substance use and this makes it difficult for drug users to seek treatment. For instance, in Winstanley et al (2016) naloxone service providers in Ohio reported that some members in the community, hospital personnel and law enforcement believe that naloxone is enabling hence, substance users should not be allowed to access naloxone services. The findings from Winstanley and others may be classified as a social stigma as it makes users reluctant to access naloxone—even when it is available.

Apart from the stigma, legal changes or framework may affect the development of naloxone programs. For instance, legal issues regarding the acceptance of harm reduction may be a barrier such as lack of acceptance from criminal justice agencies and local law enforcement organizations could impede the implementation of naloxone services. In the study of Winstanley et al. (2016), one of the peculiar problems linked to the absence of naloxone was the perception by law enforcement that drug users may exchange their naloxone kits for heroin. Powis et al. (1999) conducted interviews with self-reported drug users in London to examine the challenges they encounter in accessing naloxone and they found that although more than three-quarters of the respondents overdosing had someone present who witnessed the overdose situation, majority of the witnesses were reluctant to intervene or call an ambulance due to the fear of police intervention. Similarly, in San Francisco, Seal et al. (2003) found that witnesses of overdoses refrained from helping the substance user due to the fear of police.

The existing research indicates that health professionals may have positive attitudes toward naloxone; however, the lack of education among these professionals may limit their involvement in dispensing naloxone when there is an overdose. Also, the current study revealed that most substance users regard naloxone as a lifesaver, although it doesn't alter their drug intake habits. Stigma and the fear of law enforcement were found to be some of the barriers to

implementing naloxone. These barriers may exist especially if there is no clarity of how national policies should be translated and implemented at the local levels and the procedures involved. So far the literature on harm reduction has revealed stigma and legal enforcement as the main barriers to implementing naloxone programs. Thus, this study aims to highlight other challenges encountered in implementing the program as well as the perceptions of naloxone distribution among substance users and HR professionals in Catalonia.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The purpose of this study was to gain an in-depth understanding of professionals and substance users' perceptions and attitudes towards peer distribution of naloxone. Precisely I am interested in substance users' and professionals' attitudes towards harm reduction and the challenges faced in implementing harm reduction services. A qualitative research design was used to analyze professionals' and substance users' perceptions and attitudes toward harm reduction. Semi-structured interviews were the main tool for collecting the data. Adopting a semi-structured interview guide with open-ended questions allowed respondents to express their beliefs and personal experiences in detail.

3.2 Participants selection

The professionals interviewed for this study are paid employees for the Generalitat de Catalunya *in Direccion Servei d'Addiccions I Salut mental* and *the Sub-direcció General de Drogodependències* who have been working for Generilitat for more than two years. For this study, I define professionals as all practitioners who have at least a first-degree educational background, working within the public health sector that conducts and provides harm reduction services.

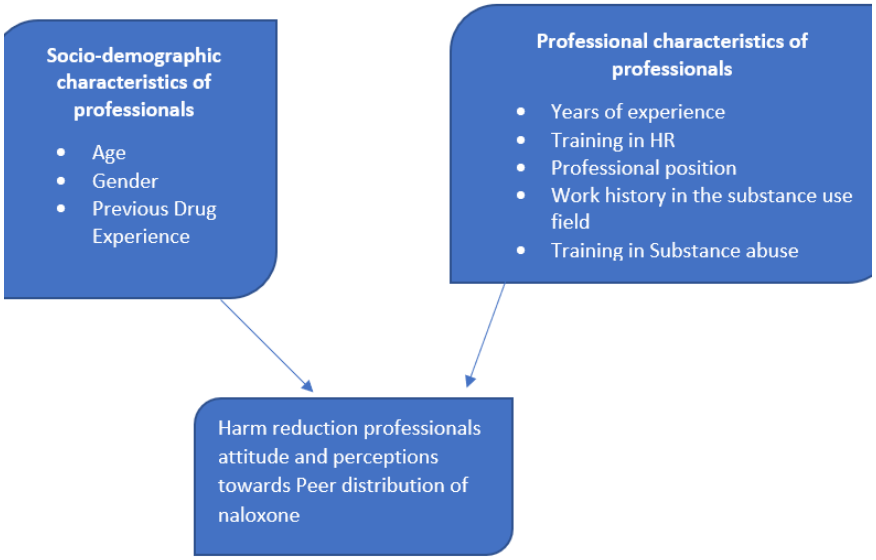

Figure 4: Conceptual framework of a professional.

The substance users who were selected were clients in the harm reduction program and members of the *Associacio de veins Sant Roc* for more than a year. The *Associacio de veins Sant Roc* is a group of people suffering from substance addiction/dependence and are enrolled in the harm reduction program. Apart from this, the substance users selected were those who had previously administered naloxone to an overdosed person, those whom the naloxone had been administered on before or those who fell within both categories. Both purposive and convenience sampling were used to recruit participants. Before the interview, professionals were contacted via email to confirm their participation and availability. The email sent out included the purpose of the study, interview questions, ethical approval, and informed consent. I was directly linked to the substance users by the professionals based on their availability and willingness to participate in the study. Before interviewing each client, a brief overview was given and informed consent was signed if they agreed to participate.

3.3 Study area/target

The study was conducted in Catalonia, an autonomous community in Spain. The main provinces in which the study was conducted within Catalonia were Barcelona and Tarragona. Catalonia was chosen as it is one of the provinces in Spain that records high levels of drug consumption—especially cannabis, cocaine, heroin and has implemented harm reduction programs. The target for this qualitative study included professionals working in the addiction and drug dependencies department in Catalonia. They included participants who work in the addiction support unit and the drug attention centers. The addiction support unit and the drug attention center all work under the public health agency of Catalonia. These facilities were visited based on the time scheduled with the target group. Three professionals from the Direccion Servei d'Addiccions I Salut mental in Tarragona, (Reus) were interviewed and a client in the same center was interviewed. In Barcelona, three clients from the Associacio de veins Sant Roc were interviewed and two professionals in the Programme on Substance Abuse/ Public Health Agency of Catalonia were also interviewed. In total, five professionals and four active substance users on the naloxone program participated in the study, totaling nine participants. Creswell (2014) recommends five to twenty-five participants for qualitative research; therefore 9 participants were enough for this study although I expected more people to participate.

3.4 Data collection

Data was collected through interviews. Before the interview, information about the study was sent to the professionals. Afterward, follow up emails were sent to professionals who agreed to participate in the study, and interview dates were arranged, based on their availability including the clients. Interviews were conducted with participants using a semi-structured interview guide designed by the researcher. The interview-guide helped to probe further and gather information from participants. The interview guide also helped me to ask questions which reflected the objectives of the study. Interviews were conducted in the English language and they were

translated by a certified English translator who is a native Spanish speaker. The interviews were conducted at the workplace of the professionals and clients were interviewed at the same place where they receive harm reduction services. The interviews conducted with participants spanned between fifteen minutes to forty-five minutes. Different questions were designed for professionals and substance users and the interviews began only when they had consented to participate. Permission was sought from participants for the interviews to be audio recorded.

3.5 Data Analysis

From the interviews conducted, the data was not used in its raw manner; however, they were synthesized, integrated, and grouped into themes through the inductive content analysis approach. This was to ensure a clear pattern for analysis and for the study to be understood easily. According to Guest et al. (2012) thematic analysis is the most common or appropriate form of analysis in qualitative research. It emphasizes, examines, and record patterns or themes within data (Braun & Clarke, 2006). The thematic analysis involves the process of coding in six phases to create established meaningful patterns. The stages for this analysis include familiarization with data, generating initial codes, searching for themes among codes, reviewing the themes, defining themes, and producing the final report. Therefore, thematic analysis was chosen as a result of its suitability for qualitative research. Moreover, the data obtained was categorized under major themes that are relevant to the description of the study and the research questions. Thus the primary data was analyzed, transcribed to English, proof-read, and edited.

3.6 Ethics

The study was approved by the Erasmus Mundus Master's Program in Public Policy at the Central European University Ethics Committee board as well as the thesis supervisor. The ethical approval was accepted by Drug Addiction Prevention and Care Service in Catalonia and I was granted access to all participants who participated in the study. Names of respondents

were not used in the report and they were presented anonymously in the discussion of research. Apart from this, the interviews recorded were all secured on a fingerprint locked computer. No public payment was offered to interviewees and written agreement to full confidentiality from any assistants who were engaged in the translation of the interviews was obtained. Permission was sought from professionals before pictures were taken in their workplace. Any questions regarding informed consent and the study were answered for participants to fully understand the research clearly.

3.7 Limitations

Conducting a study on harm reduction involving substance users could be very difficult as it is likely to pose threats to the clients benefitting from the program. Researching into drug policy issues is sometimes challenging as it has political underpinnings. It can also be difficult for respondents to willingly and objectively pass judgments on the policy. Despite all these, the major limitation of the study was a language barrier. I could only speak English; therefore, a translator was employed. Although a translator was employed, some information might have been lost during the process of translation and interpretation. Apart from this, since participants were interviewed based on their availability and willingness, the study did not ensure gender balance among participants. The time frame for this study was relatively short which did not allow me to obtain other relevant data for the study. The findings from the study are primarily based on the participants' personal experiences. Regardless of these limitations, the study was efficient and met its objectives since participants gave useful and sufficient information to address the research questions.

CHAPTER FOUR: ANALYSIS OF FINDINGS

4.1 Introduction

This qualitative study was conducted using a semi-structured interview guide with open-ended questions. The purpose of the study was to explore professionals and substance users' attitudes and perceptions towards harm reduction with a direct focus on naloxone distribution. Data was collected from professionals and substance users. Both professionals and substance users were asked different questions during the interviews. Each interview was audiotaped and lasted between 25-52 minutes. Participants' responses from each interview were analyzed based on themes. Similarities in participants' responses were pointed out and examined using the inductive content analysis approach (Creswell, 2014). I generated codes for participants' responses which I then merged into broader categories and subthemes by utilizing constant-comparative methods across all interviews (Miles & Huberman, 1994). Through critical analysis, I classified the responses into two broad categories: negative and positive sides of the naloxone distribution with the sub-themes linked to each category. The results from the interviews were grouped into three different sections. The first part reports on the perceived positive impacts of naloxone distribution on substance users. The second section focuses on negative perceptions and attitudes towards naloxone and the final section explores the responses to questions that pertains to challenges or barriers encountered in the implementation of the naloxone program. The main themes that emerged from this study were grouped from the perspective of the professionals and substance users.

4.2 Demographic characteristics of participants

The sample size consisted of 9 participants across Generalitat de Catalunya in Direccion Servei d'Addiccions I Salut mental and the Sub-direcció General de Drogodependències. Four of the participants were active substance users whereas five of them were professionals. Among the nine participants interviewed, one of them was from the Direccion Servei d'Addiccions I Salut

mental and the rest were in the drug dependency and damage reduction unit. The educational level of these professionals ranged from master's degree to doctoral level. Four of the professionals were women. Apart from this, the ages of the professionals ranged from 35-45 years and all have between 5-14 years of work experience in the harm reduction and drug dependency field. Regarding the clients, one was a female and the other 3 were males. All these clients were aged between 40-45 and were members of the association of drug users under the auspices of the drug dependency and the damage reduction department.

4.3 Perceptions and attitudes towards naloxone distribution

From the interviews conducted, participants perceive that the naloxone program has positive impacts. The following anonymous responses and quotes indicate the most mentioned aspects of the program that participants perceive to be positive. Precisely, professionals believe that the naloxone program has positive impacts on substance users and this was not different from what the substance users expressed. The positive perceptions focused on the educational impact of the program on substance users and the "lifesaving" capacity of naloxone.

4.3.1 Education, training, empowerment and awareness

Participants mentioned that the most positive aspect of the naloxone program was the education and the training they receive on how to use naloxone and prevent overdose-related death. Professionals responded that, through the program, substance users are fully equipped, trained, and knowledgeable on how to administer the naloxone in the absence of medical staff. Likewise, all the substance users reported that the educational impact of the program is very remarkable as indicated in the following quote.

> *I have been educated and trained in how to use naloxone. I am very comfortable with the training too. The education was very good because previously we knew nothing and now we know a bit about everything. (Client 1)*

I have received a lot of training, education, and information. For example, how to administer the naloxone in case there is an overdose. And I am very happy with the training I think it has been very helpful for me. (Client 2)

Participants revealed that the naloxone program facilitates their access to information and how they can manage the risk of drug use. They indicated that they could have lost their lives just like their peers if they didn't know how to administer naloxone. Similarly, professionals mentioned that one of the greatest impacts of the naloxone distribution program is the education it provides to clients; according to the professionals, through education and training, there is information sharing which creates the opportunity for clients to become abreast with issues related to the drug. Apart from this, professionals mentioned that, through education, clients get empowered, knowing that they are capable of saving their own lives and that of their peers.

For me, I think the impact is education". (client 3)

"So far I will say the biggest impact is education. Because when you are teaching them on overdose, they ask a lot of questions which shows they learned a lot with what to do and what not to do in times of crisis. So for me, I think the impact is education: they now know how to handle the situation than before when there were no workshops. (professional 2).

4.3.2 Naloxone as a lifesaver

Substance users revealed that the naloxone program is very good. All substance users expressed their perceptions by referring to naloxone as a "lifesaver". Apart from this, participants mentioned that the fact that they have the chance to carry the kits with them makes them at ease. They also reported that the program makes it possible for a third party to administer the naloxone and that makes the program commendable.

I was consuming for 5 consecutive days and I had an overdose and I was high and I was like "okay let me sleep a little bit." But thank God this (naloxone) was there and the naloxone was administered on me and it saved my life (client 4)

Yes. For example, my case is that I have been selling drugs and I also help people to sell drugs. I have been in several situations where there was an overdose and I was able to help those people. So in this case, if I had not been educated or trained I wouldn't have been able to help these people. (Client 2)

All the professionals reported that although overdose death is still prevalent, the overdose prevention program is very good as they annually recognize a slight decrease. For instance, they mentioned that they often receive feedback from substance users on how they save their peers from overdoses—and this, I suppose, makes them feel fulfilled that their efforts are not in vain. Thus despite the pervasiveness of opioid overdose death, the naloxone program is very good.

I have a very positive opinion about the program I think it is very positive although I think we need more or other programs. I think this is very good. (professional 3)

Well, I think it is a very good strategy, it is very easy to develop. There is no risk of secondary effects when you use naloxone, so it is very easy. (professional 4)

4.4. Negative perceptions towards naloxone

Both professionals and substance users were asked about their general perception of the naloxone program. Although the majority of the participants expressed positive perceptions, some expressed issues of concern which they think is negative. For instance, opioid users revealed that naloxone does not alter their drug intake levels but rather feels more comfortable consuming drugs which they think may be negative.

4.4.1 Naloxone as an enabling strategy

Throughout the interviews, the most common negative perception all participants shared was the enabling propensity of the naloxone program. Professionals were asked whether the availability of naloxone has changed opioid users' intake behavior. Similarly, substance users were asked if there have been some improvement/reduction effects on their usage levels ever since they enrolled in the program. Their responses are illustrated below.

> *No, I think it is still the same. I still consume any drug I want to consume (Client 3).*

> *For me even though there is an improvement I don't think it's because of the naloxone. (Client 2)*

> *I am taking fewer drugs than before like I am reducing but not a lot. Also, I feel more secure knowing that there is naloxone and if I get overdosed I can be saved, I know I won't die (Client 4)*

Similar to substance users, professionals also expressed that naloxone has an enabling tendency which does not change substance users' intake behaviour pattern.

> *For me, I don't think the naloxone has changed their behaviour (professional 1)*

> *For their level of intake, I don't think it has changed, but probably they have become more careful about when to consume drugs (professional 4)*

Participants perceive that naloxone does not change or enable them to reduce substance use; however, the benefits of the program supersede the negative, hence they still regard the program as a very good one.

4.5 Barriers to the naloxone program

Although participants expressed how beneficial the program is, the majority of them indicated the challenges they face. The three most mentioned barriers that both professionals and substance users mentioned are explained as follows.

4.5.1 Stigma

Participants reported that one of the barriers they face in the implementation of the naloxone program is stigma. Throughout the interviews, substance users indicated that they usually do not want to carry the kits, or even if they do, they hide it since they do not want to be seen as drug users. Professionals, equally mentioned that, although the majority of the clients have naloxone, only a few carry the kits.

> *Yes, I hide it from them (family members) and they live far away from me as well. Also, I don't want them (family)to get worried. People also think that I am not a normal person but just a junkie because I take drugs so I hide it (client 4)*

> *They (substance users) don't carry it because it is like "if I am unnoticed" with the kits then I do not have any problem. Another thing is that they feel they have written on their forehead that "I am a drug user" if I carry the kits. (professional 1)*

While it was revealed that stigma cuts across from the perspective of professionals and substance users, a clear narrative emerged that women (substance users) are highly stigmatized compared to men.

> *Well, it is because traditionally women have been considered to be more careful, more conservative. It's like they shouldn't take risks and they should be quieter. That is why it is more difficult for them to show publicly that they consume or come for treatment. (professional 3).*

4.5.2 Package of the naloxone kits

Although participants perceive stigma as a major barrier to the naloxone program, most of them mentioned that the size of the naloxone kits is their biggest barrier. Professionals mentioned that in as much as they distribute the kits, users are unwilling to carry it due to the size.

> *They say the kits are bigger, I also think the kits are bigger too and everybody can see when they carry them. It is very annoying for them that is why they don't carry it. Everyone will see that you are drug consumer when you carry it that is why they fear to carry it. (professional 1)*

4.5.3 Low-risk perception

The last theme that emerged as a barrier to the program and the prevalence of overdose was the low-risk perception for an overdose to occur. According to professionals, substance users may not carry the kits since they have a low-risk perception for an overdose to occur. This was confirmed when substance users were asked why they are sometimes reluctant to carry the kits. Apart from this, professionals also expressed that at times they also have low-risk perceptions as they have only a few users attending the naloxone training. According to the professionals, since only a few turn up for the training, it makes them perceive that only a handful of the users need the naloxone. To them, it affects the number of naloxone training they conduct.

> *There are many people (substance users) who may go out and they may not know whether they are going to consume drugs or not so they may not carry the kits. (professional 2)*

> *For me, I stopped carrying the kits because I stopped consuming a lot and I was not in the relationship with drug consumers or I was not in conflict areas. I don't go to places*

where the drug users are and if you are walking by the street you can't find an overdosed person easily so I didn't see the need of carrying the kits with me if I was not consuming a lot anymore. (Client 3)

CHAPTER FIVE: DISCUSSION, RECOMMENDATIONS, AND CONCLUSION

5.1 Introduction

This study aimed at examining the attitudes and perceptions of professionals and substance users in drug treatment, with emphasis on take-home naloxone. This chapter primarily explores and discusses the key findings based on the research objectives, and existing literature. After discussing the findings of the thesis, the next section will focus on possible recommendations both for policymaking and for future studies.

5.2 Educational impacts

From the interviews conducted one of the major themes that ran through the responses was the educational aspect of the naloxone program. According to the respondents, they do not just receive the naloxone or administer to their peers, instead, they receive adequate training, education, and knowledge which makes them well informed, equipped, and comfortable to use the naloxone when necessary. According to respondents, this is the greatest impact they can ever think of— getting educated. Although the studies conducted by Nielsen et al. (2018) and (Bunk et al., 2017) revealed a positive attitude towards naloxone by pharmacists, they also found that opioid users had limited knowledge about naloxone. This contradicts the findings in this research as all the participants mentioned that they have adequate information, knowledge, and have received adequate training on the naloxone program. The reasons for the contrast may be time differences, culture, or implementation strategies. For instance, according to the Spanish Government's strategy for naloxone distribution, substance users must receive education and training on substance, use, overdose, and naloxone before receiving the naloxone. Based on this strict strategy, it makes it possible for the clients to gain information and knowledge such as the symptoms of an overdose, how to practice safe injection, and how to administer the naloxone. Apart from this, it could also be attributed to the political environment or the legal frameworks

that support the implementation of the naloxone as well as the perspective within which such policies are implemented. Thus if the political environment and legal framework are hostile towards drug use, it may be likely for clients to have limited knowledge on naloxone due to the fear of law enforcement.

5.2.1 Naloxone as a "savior"

The studies conducted by Artigiani (2019) and Wright et al. (2006) revealed that drug users referred to naloxone as a lifesaver; this was no different from what this study found. Based on the effects that naloxone produces, it is an open truth for drug users to regard naloxone as a lifesaver as it reverses the impact of overdose. Similar expressions as naloxone being a lifesaver were used throughout the interviews with the professionals and the substance users. According to the substance users, drugs have become part of their lives, although they have tried several times to stop but to no avail, the little they can do to help themselves is to consume drugs moderately and stay alive, and this is what naloxone offers them. Thus, for them, they would have died if not for naloxone.

5.2.3 Influence of the accessibility and the availability of naloxone on substance use behaviors

As Artigiani (2019) mentioned, naloxone does not affect the drug intake levels of substance users; a similar finding was revealed in this study. The findings of this study suggest that, although substance users may realize a decrease in their intake levels, naloxone may not be the cause of the decrease but their willpower and consciousness to reduce their intake. Although the professionals and the substance users affirmed that naloxone does not alter their intake levels, I suppose that they have become very meticulous as to when and where to consume drugs. In other words, since naloxone has become a tool for their daily lives, they have become very careful in consuming drug since they take drugs in drug consumption rooms or consume

with friends so that in an event of an overdose, they may be “rescued” by the life -saving naloxone. This consciousness on drug consumption and overdose may partly be attributed to the education they have received on drug use and overdose in the naloxone program.

5.3 Barriers to the naloxone program

The barriers to the implementation of the naloxone program may perhaps reflect the lack of knowledge and understanding of drug addiction as a disease that can be treated. The lack of understanding usually culminates in the stigmatization of individuals with drug use disorders.

5.3.1 Stigma

Stigma remains one of the main barriers for substance users in accessing harm reduction programs including naloxone. As Livingston et al. (2012) assert, stigma may be classified into self, social, or structural. Based on the findings, the majority of the substance users mentioned that even though they are allowed to carry naloxone with them, they were reluctant to do so as they do not want to have any encounter with the police although the police are aware of the naloxone program. In the same vein, users do not want to carry the naloxone as they do not want their families to see them carry the naloxone—not only because their families may stigmatize them, but because they feel shameful to their families. This I suppose is what Livingston et al. (2012) referred to as self-stigma. Thus although the law enforcement is informed about the naloxone program, they feared being questioned or arrested for carrying the kits as a drug user. Due to fear, it can be inferred that self-stigma prevents substance users to carry the naloxone aside from the structural or social barriers that exist. Countering these erroneous perceptions and beliefs by substance users is essential to enhance a continuous expansion and access to—not only naloxone but other harm reduction programs.

Moreover, although stigma remains a huge barrier, the study revealed that women are likely to be stigmatized when they seek treatment compared to men. The findings from this

study indicated that women are unwilling to get involved in the naloxone due to the fear of being stigmatized. Professionals revealed that approximately 80 percent of men have enrolled in naloxone as well as other harm reduction strategies, whereas women constituent 20 percent. Although the number of men who use drugs is higher than women, the professionals believed that women are very reluctant to visit their centers for the naloxone program due to the social stigma of being a "female drug user". This implies that women face a double stigma based on being women and drug users. Many of the themes of the stigma that professionals and substance users mentioned are primarily based on the moral model of drug addiction, where drug users are seen as persons without morals and the only way to correct this is punishment, hence their reluctance to carry the naloxone in order not to be seen as immoral.

5.3.2 Low-risk perception

Apart from stigma being a barrier and one of the reasons why substance users may not carry the kits, low-risk perception of overdose occurrence is also a barrier to the naloxone program. Professionals revealed that, even if users are successful in treatment, there is a possibility of relapse, however, users tend to pay deaf ears to the risk of relapse and this also contributes to their low-risk perception. Apart from this, most of the substance users may think that they are unlikely to experience an overdose and "are clean" especially if they are not with peers. This implies that users will only carry naloxone if they anticipate that they will consume drugs or take part in any drug-related activity with their peers. Although users may have low-risk perceptions, the reasons for their low-risk perception can be explained as a significant barrier which they think may limit their chances of achieving abstinence.

Professionals also mentioned that their low-risk perception is a barrier to the naloxone program. According to professionals, they mostly offer alcohol treatment programs and this makes them question the necessity of frequently conducting naloxone training as they perceive little or no need for opioid treatment. Thus since the attendance for the naloxone program is

low, professionals also have a low-risk perception and this is a barrier to harm reduction as it hinders them from conducting training programs frequently.

5.3.3 The package of the naloxone

From the literature, none of them mentioned the size of naloxone as a barrier; however, this study revealed that the size of the naloxone is a barrier to the implementation of the program. All professionals and users mentioned that the naloxone is "too big" therefore carrying it makes it very obvious and portrays them as "junkies". That is why they sometimes try hard to hide or not carry the naloxone at all. While participants lamented that the size is big, I suppose "big" is very relative and context-specific. Apart from this, it could also be attributed to how the naloxone is packaged—the kits consist of gloves, prescription cards, two syringes, two gauges, two bottles of naloxone (0.4ml each), alcohol prep pads and a mouth to mouth protector (See appendix). Also, since users think the naloxone kits are bigger, it is valid for me to assert that the size of the naloxone kits contributes to self-stigma since they don't want to be considered as drug users carrying naloxone.

5.4 Towards a disease model for peer distribution of naloxone

The themes of stigma expressed by professionals and substance users are related to the moral model of drug use and intervention. The results showed that there is some support for the moral model especially in the society; however, generally, there is larger support for the disease model which is now exclusively used in drug treatment centers in Spain and considered as a humane approach and a substitute to the moral model. This study showed that professionals and substance users have positive attitudes towards naloxone which implies higher acceptability of harm reduction programs. This could easily be explained as an adaptation to the disease model of substance use and treatment, where professionals may have the presumption that addiction is a disease which can be treated—but gradually for patients to become sober from all

substances, unlike the abstinence or moral model which focuses on immediate abstinence. Moreover, the education and training embedded in the naloxone program and other harm reduction programs in Catalonia have also begun to emphasize human rights and humane approach, and this is gradually making the disease model popular not only in Spain but in other European countries. Many professionals including health workers are now becoming aware of the disease approach as an alternative to treating addiction and substance use. The disease model of substance uses and treatment focuses on health promotion which enables people to improve and maintain good health while consuming drugs.

5.5 Policy recommendations

Eradicating drug-induced or overdose death is an unending goal the Spanish government aims to achieve. The Catalan government so far has been effective in implementing a wide range of harm reduction programs, laws, and policies geared towards reducing drug overdose death to its barest minimum. These policies and measures were implemented to directly or indirectly affect public health by tackling drug issues as mentioned in the previous sections. Despite all these measures, drug-overdose death is still thriving regardless of the measures towards its elimination. This section of the thesis highlights three main policy recommendations necessary for alleviating the problem.

5.5.1 Countering stigmatizing and erroneous beliefs

Countering erroneous beliefs is vital for the expansion and continuity of naloxone programs. Developing educational information not only for substance users but also for the entire public on the prevalence of fatal and non-fatal overdoses will help reduced stigma related and erroneous beliefs. Moreover, messages, radio, and TV discussions that portray that overdose is a cause of death which is also easily preventable can help to increase public awareness, information sharing, and enhance social knowledge and community acceptance of the naloxone

program. Interventions such as contact-based training, motivational interviewing, and education (Livingston et al., 2012) have been demonstrated as an effective intervention to minimize structural and social stigma related to substance use disorders. Therefore, these strategies could be very helpful to improve naloxone implementation not only among health care and harm reduction professionals but law enforcement personnel as well. Some law enforcement agents and even health professionals may not be aware of or understand the pharmacology and physiological effects of naloxone. Likewise, they may not know the signs and symptoms of an opioid-related overdose. Therefore, further education, interaction, and training which entails bringing onboard persons who have been saved by naloxone to share true stories of their reversal experiences may serve as a mechanism to educate users, professionals, and the public about the potency and importance of naloxone. This may be accomplished through contact-based training. Education, awareness, and training will also keep substance users who have completed their treatment informed and conscious of their high risk of relapse.

5.5.2 Gender mainstreaming/ sensitive services

Globally it is estimated that one-third of the 275 million people who use drugs are women (Global State of Harm Reduction, 2018). Despite this "small" number, it is mostly reported that women drug users have limited or no access to harm reduction services and this makes them more prone to Hepatitis C and HIV infections compared to men who use drugs. Likewise, it is believed that women around the world who use drugs encounter double stigma based on their drug use and their gender. The ingrained social and patriarchal norms in some settings lead to the reluctance of women and women who use drugs to access drug treatment and general health care. Expectant mothers and women with children are reportedly likely to face discrimination and stigma when accessing available harm reduction services. According to the Global State of Harm Reduction Report 2018, in some contexts, women with children as well as pregnant women who use drugs are more likely to face greater stigma even to the extent of losing custody

of their children or face law enforcement agencies based on child abuse. Thus to minimize stigma and encourage women drug users' participation in harm reduction, the Catalan government and policymakers need to design gendered sensitive naloxone services. From the research, it was revealed that there is only one drug consumption room in Catalonia designed specifically for women which are undoubtedly not feasible to accommodate all female substance users. Thus, exclusive naloxone training and education sections for women only will enhance women's accessibility to naloxone programs and also minimize stigma.

5.5.3 Adopting intranasal naloxone delivery

The naloxone nasal spray also referred to as Narcan spray is an opioid overdose treatment approved by the Food and Drugs Administration. It is a ready-to-use and needle-free spray for overdose. From the research conducted, most of the participants mentioned that at times, it is difficult to administer naloxone intravenously, not because they cannot administer it but because it takes quite much time to administer the naloxone. Also, in some cases the friends and families of drug users who have been trained to administer naloxone find it difficult, as it seems uncomfortable for them to inject their relatives with naloxone. Thus to make it easier, comfortable, and convenient, the Catalan government could adopt the nasal naloxone as it is a needle-free approach of reversing an overdose. Intranasal medical delivery is a substitute delivery method for injectable medications (Barton et al., 2005). It has a rapid onset effect, a direct effect on the central nervous system, and high plasma bioavailability when used correctly with appropriate medicines. Most importantly, intranasal delivery eliminates needles and first-pass metabolism—a phenomenon whereby a drug metabolizes in a particular location in the body which results in a reduction of the drug's concentration upon reaching its systemic point of circulation. Access to the nose is quite easy, does not necessarily involve invading into a person's privacy, and relatively instant, compared to injectables— especially in a non-medical setting where access to the most remote part of the body through clothing may vary from one

person to the other. Hence, the intranasal delivery of naloxone in emergencies is a safe and rapid method for the professional, potential bystanders, and the user.

A research conducted by Barton et al. (2005) in Salt Lake City in the United States on the efficacy of intranasal naloxone as a substitute treatment for opioid overdose in a non-hospital setting revealed that nasal drug delivery does not only eliminate the risk of needle exposure, but also it does not require any clinical training or skills before administering sterile techniques, and the most of it all, it eliminates the pain accompanied with injection.

Nasal drug delivery is not without challenges. For instance, a significant amount of fluids from nasal bleedings or secretions may destruct the absorption of the drug and if higher drug volumes are used to overcome this challenge, it may cause further fluid to drain into the hypopharynx (the part of the throat that lies behind and beside the larynx) and outside the nostrils making absorption impossible. Despite all these, adopting the nasal naloxone may help the Catalan government to reduce opioid-related death as it will eliminate the barrier of the "bigness" of the existing naloxone, giving little or no reason for users not to carry naloxone and also reduce stigma.

Recommendation 1	Potential obstacles	Recommendation 2	Potential obstacles	Recommendation 3	Potential obstacles
Countering stigmatizing and erroneous beliefs	Countering stigma is not a one-time activity. It demands a lot of time, activities, resources, joint development, and sectoral interventions and measures of the social actors involved.	**Gender mainstreaming/ sensitive services**	Gender mainstreaming does not guarantee the success of the policy either does it guarantee that women especially will utilize the services	**Adopting intranasal naloxone delivery**	Fluids from nasal bleedings or secretions may destruct the absorption of the drug and if higher drug volumes are used to overcome this challenge, it may cause further health complications
	Dealing with stigma related challenges can be difficult especially in a conservative political environment.		GM goes through processes of mobilization, raising awareness and involvement of the actors concerned, thus it may take a long time to mobilize these concerned groups to implement		There is no guarantee that substance users will be willing to carry the nasal naloxone with them.
	Awareness and educational projects for communities in a different context (schools, universities, churches, health services) to disseminate information on drug addiction, aimed at deconstructing discriminatory promoting supportive behavior may be costly and time-consuming.		Extra resources, expertise, and instruments are needed to fuel GM projects. This may be costly for the government to implement such projects.		Very costly to implement nasal naloxone spray

Figure 5: Summary of policy recommendations and potential obstacles.

5.6 Conclusion

The findings of this research have provided a comprehensive understanding of harm reduction as a conceptual framework for drug treatment. It has also provided an in-depth understanding of the socio-cultural challenges, substance users face and how it mostly interferes with harm reduction services. Although some scholars have argued that harm reduction encourages substance use and disregard abstinence, this study found that harm reduction provides social and peer support, empowers, educate and train substance users which helps them to improve their health and wellbeing while upholding abstinence as a goal to drug treatment. Thus, harm reduction does not disregard abstinence, instead, it provides a gradual process that considers drug users as "sick people" who need social support to recover.

Overdose deaths are potentially evitable, thus it is vital to increase access to naloxone and overdose prevention education. Expanding access to naloxone will help to eliminate overdose death in Catalonia. To ensure that overdose death is eliminated in Catalonia, the

government must include gender-sensitive services in harm reduction programs so that men and women can have equal access to drug treatment. Apart from this, the government as well as other stakeholders should conduct public education aimed at providing information and knowledge on drug addiction to counter erroneous beliefs about drug use.

Finally, from the interviews conducted, other implementation challenges (identifying clients, and coordination with other stakeholders) were revealed. These were quite relevant to the study. Due to the brevity of the thesis and time constraints, all the themes could not be elaborated. However, the above findings are extremely significant as they contribute to the knowledge and literature on harm reduction, specifically on naloxone in Spain. This study can, therefore, serve as a foundation and a directive for future researchers who may conduct in-depth research on harm reduction in Spain. Again, this research was conducted in Catalonia, therefore, future research can improve on the study by including other provinces in Spain.

REFERENCES

Aebi, M. F., & Delgrande, N. (2014). *Council of Europe Annual Penal Statistics:Prison population survey 2012*. https://serval.unil.ch/resource/serval:BIB_EE8A40BCB089.P001/REF.pdf

Alford, D., Jackson, A., Liebschutz, J., & Siegel, B. (2010). Prescription Drug Abuse: An Introduction. *Mededportal*, *6*(1), mep_2374-8265.8160. https://doi.org/10.15766/mep_2374-8265.8160

Artigiani, E. E. (2019). *Perceptions of Naloxone Among Urban Opioid Users*. https://ndews.umd.edu/resources/perceptions-naloxone-among-urban-opioid-users-3-cities.

Barton, E. D., Colwell, C. B., Wolfe, T., Fosnocht, D., Gravitz, C., Bryan, T., Dunn, W., Benson, J., & Bailey, J. (2005). Efficacy of intranasal naloxone as a needleless alternative for treatment of opioid overdose in the prehospital setting. *The Journal of Emergency Medicine*, *29*(3), 265–271.

Bollinger, L. (2002). *Recent Developments regarding Drug Law and Policy in Germany and the European Community: The Evolution of Drug Control in Europe—Lorenz Böllinger, 2002*. https://journals.sagepub.com/doi/abs/10.1177/002204260203200202

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Brickman, P., Rabinowitz, V. C., Karuza, J., Coates, D., Cohn, E., & Kidder, L. (1982). Models of helping and coping. *American Psychologist*, *37*(4), 368–384.

Bunk, E. J., Higginbotham, S. K., & Skomo, M. L. (2017). *Pharmacists' perceptions and baseline knowledge assessment of a statewide naloxone standing order*. 6.

Christie, T., Groarke, L., & Sweet, W. (2008). Virtue ethics as an alternative to deontological and consequential reasoning in the harm reduction debate. *International Journal of Drug Policy*, *19*(1), 52–58. https://doi.org/10.1016/j.drugpo.2007.11.020

Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., & Kubiak, M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, *44*(2), 162–179.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed). SAGE Publications.

Doleac, J. L., & Mukherjee, A. (2018). The Moral Hazard of Lifesaving Innovations: Naloxone Access, Opioid Abuse, and Crime. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3135264

European Monitoring Centre for Drugs and Drug Addiction(2019). A*nnual report on the state of drugs problem in Europe.* https://www.emcdda.europa.eu/publications/annual-report/2010_en

European Monitoring Centre for Drugs and Drug Addiction(2015). European Drug Report:Trends and Development. https://www.emcdda.europa.eu/system/files/publications/974/TDAT15001ENN.pdf

European Monitoring Centre for Drugs and Drug Addiction(2016). *European Drug Report:Trends and Development.* https://www.emcdda.europa.eu/system/files/publications/2637/TDAT16001ENN.pdf

European Monitoring Centre for Drugs and Drug Addiction(2016). *Spain Drug Reoprt.* https://www.emcdda.europa.eu/system/files/publications/4525/TD0116922ENN.pdf

European Monitoring Centre for Drugs and Drug Addiction(2019). *European Drug Report:Trends and Development.*

https://www.emcdda.europa.eu/system/files/publications/11364/20191724_TDAT19001ENN_PDF.pdf

Gilchrist, G., Moskalewicz, J., Slezakova, S., Okruhlica, L., Torrens, M., Vajd, R., & Baldacchino, A. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, *106*(6), 1114–1125.

Güell, O. (2019, October 23). *Opioid overdoses cause more than 1,000 deaths a year in Spain*. https://english.elpais.com/elpais/2019/10/22/inenglish/1571741308_549814.html . https://english.elpais.com/elpais/2019/10/22/inenglish/1571741308_549814.html

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied Thematic Analysis*. SAGE.

Healthpeople.gov (2013) *Healthy people 2020*. https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse

Herbeck, D. M., Hser, Y.-I., & Teruya, C. (2008). Empirically supported substance abuse treatment approaches: A survey of treatment providers' perspectives and practices. *Addictive Behaviors*, *33*(5), 699–712. https://doi.org/10.1016/j.addbeh.2007.12.003

Hubbard, R. L., Craddock, S. G., Flynn, P. M., Anderson, J., & Etheridge, R. M. (1997). Overview of 1-year follow-up outcomes in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors*, *11*(4), 261–278. https://doi.org/10.1037/0893-164X.11.4.261

Kalebka, R. R., Bruijns, S. R., & van Hoving, D. J. (2013). A survey of attitudes towards patient substance abuse and addiction in the Emergency Centre. *African Journal of Emergency Medicine*, *3*(1), 10–17. https://doi.org/10.1016/j.afjem.2012.09.004

Kyser, N. (2010). Counselor Attitudes Toward the Harm Reduction Approach in Substance Abuse Treatment. *Counseling & Human Services Theses & Dissertations*. https://doi.org/10.25777/abzz-km63

Levine, H. G. (1984). The Alcohol Problem in America: From Temperance to Alcoholism. *British Journal of Addiction*, *79*(4), 109–119. https://doi.org/10.1111/j.1360-0443.1984.tb03845.x

Lim, S. S., Vos, T., Flaxman, A. D., Danaei, G., Shibuya, K., Adair-Rohani, H., AlMazroa, M. A., Amann, M., Anderson, H. R., Andrews, K. G., Aryee, M., Atkinson, C., Bacchus, L. J., Bahalim, A. N., Balakrishnan, K., Balmes, J., Barker-Collo, S., Baxter, A., Bell, M. L., … Ezzati, M. (2012). A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: A systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*, *380*(9859), 2224–2260. https://doi.org/10.1016/S0140-6736(12)61766-8

Livingston, J. D., Milne, T., Fang, M. L., & Amari, E. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: A systematic review. *Addiction*, *107*(1), 39–50. https://doi.org/10.1111/j.1360-0443.2011.03601.x

Mancini, M. A., Linhorst, D. M., Broderick, F., & Bayliff, S. (2008). Challenges to Implementing the Harm Reduction Approach. *Journal of Social Work Practice in the Addictions*, *8*(3), 380–408. https://doi.org/10.1080/15332560802224576

Margolis, R. D., & Zweben, J. E. (1998). *Treating patients with alcohol and other drug problems: An integrated approach.* American Psychological Association.

Marlatt, G. A. (1996). Harm reduction: Come as you are. *Addictive Behaviors*, *21*(6), 779–788. https://doi.org/10.1016/0306-4603(96)00042-1

Marlatt, G. A., Blume, A. W., & Parks, G. A. (2001). Integrating harm reduction therapy and traditional substance abuse treatment. *Journal of Psychoactive Drugs*, *33*(1), 13–21.

Marlatt, G. A., & Witkiewitz, K. (2002). Harm reduction approaches to alcohol use: Health promotion, prevention, and treatment. *Addictive Behaviors*, *27*(6), 867–886.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. SAGE.

Miller, W. R., & Kurtz, E. (1994). Models of alcoholism used in treatment: Contrasting AA and other perspectives with which it is often confused. *Journal of Studies on Alcohol*, *55*(2), 159–166. https://doi.org/10.15288/jsa.1994.55.159

Nielsen, S., Peacock, A., Lintzeris, N., Bruno, R., Larance, B., & Degenhardt, L. (2018). knowledge of opioid overdose and attitudes to supply of take-home naloxone among People with Chronic Noncancer Pain Prescribed Opioids. *Pain Medicine*, *19*(3), 533–540. https://doi.org/10.1093/pm/pnx021

Onni, A. G.(2006). A cross-national outcome study of post-treatment alcoholics: Their abstinence and relapse - ProQuest. Retrieved March 18, 2020, from https://search.proquest.com/openview

Pares, O., & Bouso, J.,C.(2015).*Innovation Born of Neccseity. Pioneering drug policy in Catalonia, Lessons from drug policy series, global drug policy program.* https://www.opensocietyfoundations.org/uploads/23886ebf-ac11-4d8f-b02b-a03d426cee44/innovation-born-necessity-pioneering-drug-policy-catalonia-20150428.pdf

Powis, B., Strang, J., Griffiths, P., Taylor, C., Williamson, S., Fountain, J., & Gossop, M. (1999). Self-reported overdose among injecting drug users in London: Extent and nature of the problem. *Addiction*, *94*(4), 471–478. https://doi.org/10.1046/j.1360-0443.1999.9444712.x

Raisch, D. W., Fudala, P. J., Saxon, A. J., Walsh, R., Casadonte, P., Ling, W., Johnson, B. A., Malkerneker, U., Ordorica, P., Williford, W. O., & Sather, M. R. (2005). Pharmacists' and Technicians' Perceptions and Attitudes Toward Dispensing Buprenorphine/Naloxone to Patients with Opioid Dependence. *Journal of the American Pharmacists Association*, *45*(1), 23–32.

Roncero, C., Littlewood, R., Vega, P., Martinez-Raga, J., & Torrens, M. (2017). Chronic hepatitis C and individuals with a history of injecting drugs in Spain: Population assessment, challenges for successful treatment. *European Journal of Gastroenterology & Hepatology*, *29*(6), 629–633. https://doi.org/10.1097/MEG.0000000000000855

Sánchez, C. (2017). El control de drogas: Normas internacionales, desafíos nacionales : el caso de la política de drogas en España. *El control de drogas*, 1–233. https://doi.org/10.1331/1544345052843200

Sánchez, C., & Collins, M. (2018). Better to ask forgiveness than permission: Spain's sub-national approach to drug policy. *Policy Brief*, *12*.

Seal, K. H., Downing, M., Kral, Alex. H., Singleton-Banks, S., Hammond, J.-P., Lorvick, J., Ciccarone, D., & Edlin, B. R. (2003). Attitudes About Prescribing Take-Home Naloxone to Injection Drug Users for the Management of Heroin Overdose: A Survey of Street-Recruited Injectors in the San Francisco Bay Area. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, *80*(2), 291–301. https://doi.org/10.1093/jurban/jtg032

Strang, J. S., McDonald, R., Hedrich, D., Simon, R., & European Monitoring Centre for Drugs and Drug Addiction. (2016). *Preventing opioid overdose deaths with take-home naloxone.* Publications Office. http://bookshop.europa.eu/uri?target=EUB:NOTICE:TDXD15020:EN:HTML

United Nations Office on Drugs and Crime(2009). *World Drug Report.* https://www.unodc.org/documents/wdr/WDR_2009/WDR2009_eng_web.pdf

United Nations Office on Drugs and Crime(2010). *World Drug Report.* https://www.unodc.org/documents/wdr/WDR_2010/World_Drug_Report_2010_lo-res.pdf

United Nations Office on Drugs and Drugs Addiction(2012). *World Drug Report.* http://www.unodc.org/documents/data-andanalysis/ WDR2012/WDR_2012_ web_small.pdf

van Boekel, L. C., Brouwers, E. P. M., van Weeghel, J., & Garretsen, H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, *131*(1), 23–35. https://doi.org/10.1016/j.drugalcdep.2013.02.018

World Health Orgnaization (2014).*Naloxone:a take-home antidote to drug overdose that saves lives.* https://www.who.int/features/2014/naloxone/en/

Wiltsek, S., Dana. (2004). *Assessing practicing psychologists' alcohol/substance use and their treatment attitudes with alcohol using clients: Abstinence vs. harm reduction - ProQuest*. https://search.proquest.com/openview/

Winstanley, E. L., Clark, A., Feinberg, J., & Wilder, C. M. (2016). Barriers to implementation of opioid overdose prevention programs in Ohio. *Substance Abuse*, *37*(1), 42–46. https://doi.org/10.1080/08897077.2015.1132294

Wright, N., Oldham, N., Francis, K., & Jones, L. (2006). Homeless drug users' awareness and risk perception of peer "Take Home Naloxone" use – a qualitative study. *Substance Abuse Treatment, Prevention, and Policy*, *1*(1), 28. https://doi.org/10.1186/1747-597X-1-28

APPENDICES

Interview Questions.

Attitude and Perceptions of Harm Reduction in Drug Treatment: Decoding Peer Distribution of Naloxone

For Professionals

1. How did you become involved in the program? Why?
2. How does PDN work and what role do you play in its operations.
3. Who are your clients (in terms of age, gender) and how do you identify them? Characteristics of prospective.
4. What do you see as the impact of the program on drug users themselves?
5. Has the availability of PDN changed opioid users' behavior? (Whether positive or Negative changes) Can you tell me more?
6. What kind of barriers and obstacles do you face in PDN? How can they be addressed/improved?
7. In all, what are your perception of PDN?

Do you have any recommendations to improve the PDN program?

For clients (Substance users)

1. Can you describe your situation before you started participating in the PDN program?
2. How did you get involved? Why?
3. What kind of training have you received in this program? Are you comfortable with your progress so far?
4. Can you tell me about your experiences of being in the program? i.e. How has it impacted you? (wellbeing/health etc.) Can you tell me more?
5. Who is aware (friend, family/neighbor, partner) or has access to the Naloxone so that in an event that you overdose the person can administer it to you?

Why that person?

6. Do you think there have been some improvement/positive effects ever since you enrolled in the PDN program? Can you tell me more?
7. In all, what are your perceptions of PDN?
8. Are there any challenges you have or might have experienced ever since you enrolled in the program?

How can it be improved? Recommendations?

Appendix 2

Interview Respondents

Respondent	**Institution**	**Description**	**Date of Interview**	**Location**	**Recorded/Notes**
1	Drugs and Attention Centre	Respondent 1 is a harm reduction worker at the drug attention center. She is a mother.	May 2019	Respondent's workplace	Recorded
2		Respondent 2 is a substance user, who has been on the naloxone program for more than 2 years. He is also part of the drug users association in Reus.	May 2019	Drugs Attention Centre	Recorded
3	Mental health and addiction support unit	Respondent 3 is a harm reduction worker at the addiction center in the hospital.	May 2019	Respondents workplace	Recorded
4	Attention Centre	Respondent 4 is the head of the Servei d'Addiccions i Salut Mental HUSJR in	May 2019	Respondents workplace	Rec

		Reus. He has worked there in the last 16 years			
5	Attention Centre	Respondent 5 is the harm reduction personnel who works at the reduction center and the Associacio de veins Sant Roc in Barcelona	May 2019	Skype	Recorded
6		Respondent 6 is a substance user and a drug seller and a member of the association for drug users.	May 2019	Associacio de veins Sant Roc/ Harm reduction centre	Recorded
7		Respondent 7is a drug user and a member of the association for drug users.	May 2019	Associacio de veins Sant Roc/ Harm reduction centre	Recorded
8		Respondent 8 is a drug user and a member of the association for drug users.	May 2019	Associacio de veins Sant Roc/ Harm reduction centre	Recorded
9	Public Health Agency of Catalonia	Respondent 9 is the director of the Program on Substance Abuse / Public Health Agency of Catalonia, who is in charge of the naloxone program and other harm reduction services. She has worked as a harm reduction officer in the last 12 years	May 2019	Respondent's workplace	Recorded

Appendix 3

Figure 6: The naloxone kit. Source: Espelt et. al 2015

Ethical Approval

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To whom it may concern

This is to confirm that Melody Rachel Frempong, a Ghanaian national, is a student of the two year Mundus Masters program studying at the Central European University, Budapest and IBEI, Barcelona. Ms Frempong is undertaking research for her MA thesis on peer distribution networks for Naloxone in Barcelona. I am the supervisor of Ms Frempong's thesis. Ms Frempong comes from a background in drug policy research and reform advocacy. She has discussed at all stages of her research planning the ethics of working with and interviewing drug users and clinicians involved in drug user support and peer distribution networks. In line with the ethical approval guidelines of CEU, Ms Frempong commits to the following procedures during her research:

To gain informed consent from all interviewees, anonymised if requested and oral if specified, and full details of the research if requested;

- To provide full confidentiality to all interviewees if requested, with coding of responses;
- To secure all materials on a finger print locked computer;
- No public or private payment is to be provided or offered to interviewees;
- Written agreement to full confidentiality from any assistant who may be engaged in translation support for Ms Frempong

As a participant of a 2 credit course that I deliver on Drug Policy at CEU, Ms Frempong is fully familiar with the sensitivities around drug use disclosure. She has received ethical approval from relevant authorities at CEU, from myself as her supervisor. Professor Agnes Batory, director of the

Mundus program at CEU has approved the thesis topic and that all internal procedures for ethical approval have been duly followed.

My details are provided in the event any form of further validation is

required Yours sincerely

Julia Buxton.