

The Problem of Fentanyl in Mexico, beyond its Consumption

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Abstract

This paper presents information about the biochemical characteristics of fentanyl, as well as its effects on the nervous system, at a cognitive and behavioral level. It also briefly discusses the most effective forms of treatment to date, a combination of medication and cognitive behavioral therapy, for which not much evidence-based research is reported, because not enough exists yet.

A brief account of the emergence of opiates in the United States is made, which after a few decades would open the door to fentanyl and its unfortunate consequences for its consumption. It is mentioned how fentanyl is currently introduced mainly from Mexico, since its chemical precursors are shipped from China and India, mainly.

It also relates how the transfer of fentanyl made in Mexican laboratories is carried out, particularly by the drug cartels, at the same time that its consumption in Mexico begins to be a public health problem, especially in the border states with USA.

It is briefly stated that in Mexico there is a lack of public health policies in many aspects, one of them addictions, and of resources and specialists in the treatment of fentanyl consumption in particular. Civil associations do not have government resources, but their opposition and carry out their work thanks to international financial support, mainly from the United States and Canada.

It is concluded that the solution to this epidemic must be shared by the countries involved (United States and Mexico), changing the punitive approach and blaming the other, for one of joint collaboration, in which the implementation of possible strategies is a responsibility shared.

Keywords: *Fentanyl; Overdose; Treatment; Cognitive Behavioral Therapy; Drug Trafficking*

Introduction

Fentanyl, whose formula (is $C_{22}H_{28}N_2O$) or N-(1-fentanyl-4-piperidyl) propionanilide, is a synthetic opioid narcotic agonist useful for the treatment of severe pain due to its analgesic and anesthetic properties. It was first developed by Paul Janssen in 1960 and approved for medical use in the United States in 1968 [1]. Since then, its use has been increasing, both prescribed or obtained illegally or mixed with other drugs, such as heroin or low-purity methamphetamine, to increase its potency and hook the user from the first time. As little as 2 milligrams of fentanyl can be fatal.

However, illegal consumption does not allow knowing the amount of fentanyl that a certain drug bought on the street has, such as methamphetamine or heroin, so overdose deaths are a true epidemic in the United States. "When you overdose on fentanyl, breathing can become very slow or stop completely. This can reduce the amount of oxygen reaching the brain, known as hypoxia. Hypoxia can lead to a coma and cause permanent brain damage; it can also cause death", details the National Institute of Drug Abuse of the United States (NIDA) [2].

In the brain there are opioid receptors, which reduce intense pain when blocked. Like heroin or morphine, fentanyl works by binding to opioid receptors found in areas of the brain that control pain and emotions. After repeated use, the brain adapts to the drug and its sensitivity decreases, making it difficult to feel pleasure from anything other than the drug. Fentanyl is such a strong drug that it causes an overdose in a matter of seconds, to the point that people are unable to remove the needle from their bodies before becoming unconscious [3].

How is fentanyl addiction treated?

Until now there is a large amount of information about the damage that fentanyl and other opioids produce in the nervous system, however, there is not enough research about psychological treatment and its effectiveness, based on evidence. The National Institute on Drug Abuse (NIDA) states that treatments that have been successful in other cases of addiction can be used, that medications and behavioral therapies have proven effective in treating people addicted to fentanyl. Behavioral therapies for addiction to opioids such as fentanyl can help people change their attitudes and behaviors toward drug use, increase their ability to lead a healthy life, and help them continue to take their medications. This application is a cognitive behavioral therapy should be used as part of a treatment that includes buprenorphine and contingency control" [1]. However, it does not report psychological research that validates these arguments, while drug research is abundant.

The NIDA adds that drugs such as naltrexone can be used to counteract the cravings of taking fentanyl. This drug attaches to opioid receptors and blocks the effects of the drug. Naltrexone causes the opioid receptors to be always busy and the person does not have the sensation of wanting to be taking the drug. This is used for rehabilitation and is used under medical supervision. Another medicine is naloxone and it is useful when a person is intoxicated, that is, the effect is reversed, but its use is hospitalized because the person has to be kept under observation. Naloxone in Mexico is a drug that is legally controlled.

Fentanyl in the United States

This serious epidemic began with the development of OxyContin, produced by the Purdue Pharma company, which introduced it to the market in 1996 and advertised it as a harmless analgesic [4]. However, since the 1920s, the problem of addiction to this substance It had already been identified, but through political lobbying and adequate publicity, its discussion was put aside and its use continued.

The consumption of fentanyl, alone or mixed, whether voluntarily or not, has followed an increasing trend. Especially in the first twenty of this century, during which fentanyl became one of the most commonly prescribed drugs in the United States, including for daily pain, through perks granted to health professionals to prescribe its use. In other words, the great beneficiary of this serious health problem on a large scale has undoubtedly been the pharmaceutical industry. In this way, an optimal market for fentanyl was created in the United States, due to the excess of opiates that were legally prescribed. Over time, some of these patients and consumers in general, sought legal or illegal ways to obtain it, with the known consequence of the high rate of deaths from overdose.

The trafficking of illegal fentanyl to the United States

The growing consumption of fentanyl in the United States is closely linked to the strategies of drug trafficking and organized crime in Mexico, since it is possible to satisfy its great demand as its production is not subject to crops that depend on seasonal changes (such as

poppies or marijuana), which, on the other hand, has decreased the number of hectares planted, seriously affecting the economy of farm workers [5]. Their transfer to the north is also much easier to carry out, according to Dr. José Andrés Sumano Rodríguez, a researcher at the Department of Cultural Studies at El Colegio de la Frontera Norte (Colef), this has led to the traditional routes of trafficking of cocaine and heroin to the United States, are less attractive, due to the rise of opioids and synthetic drugs [6].

Currently, fentanyl is increasingly made in Mexico, since its primary precursors come from China and India, mainly. Dr. Sumano explains how it is that the cities located in the north of Mexico, near the Pacific, especially those located in the following states: Baja California: Mexicali, Tijuana (which borders San Diego, in California), this is the point of greatest drug and people trafficking to the north, Sonora (which is the border with Arizona), Culiacán (in the state of Sinaloa), and recently the so-called “small border”, located in the states of Nuevo León and Tamaulipas, especially for Nuevo Laredo. These last two states are not located to the west of Mexico (Pacific Ocean), but to the east (Atlantic Ocean). Other States, such as Michoacán, which are located more in the center of the country, but on the Pacific Ocean, also play an important part in the introduction of inputs and the production of fentanyl, mainly the Port of Lázaro Cárdenas and the Port of Manzanillo (in the state of de Colima), and most notably the state of Zacatecas, which, although it is a state located in the center of the country, constitutes a strategic territory for the transfer of drugs and human trafficking (for purposes of sexual or labor exploitation) and in the where there are frequent armed confrontations between the different drug cartels, which have increased the levels of violence and national insecurity.

Drug trafficking has not focused only on the production and trafficking of fentanyl, but has extended to other areas, such as trafficking in women, kidnapping, extortion, collecting apartment rent; The latter, if not paid, can cost the lives of the owners or the fire of their facilities. In fact, the entire country is in this situation of drug violence on the part of the so-called organized crime, of which some authorities are not always outside, on both sides of the border.

For the researcher from El Colegio de la Frontera, Mexico and the United States must face the fentanyl crisis with joint strategies, in addition to the complex network of problems that unite these two countries, based on a change in the way they view the problem: The opioid crisis should be seen as a public health issue and not part of a punitive approach.

Fentanyl in Mexico

The increase in addictions should not only be a concern for the United States government, but also for Mexico, since substance use is increasing among Mexicans, says historian Benjamin Smith, author of the book “The drug” The true history of drug trafficking in Mexico [7]. He explains that in Mexico the consumption of synthetic opioids-such as crystal and fentanyl-has increased by 500% in recent years.

Benjamin Smith [8] affirms that the United States has historically held other countries responsible for the drug use of their citizens, illustrated by the following: In Tijuana the distribution of fentanyl has been increasing, due to the seizure of 269 kilograms that occurred between January and August of 2022 by the Secretariat of Citizen Security (SSC) of Baja California, it is estimated that the increase has reached 333 percent. According to The Washington Post, Tijuana has long been a major transit point for illicit merchandise to the United States, such as alcohol during Prohibition from 1920 to 1933 and the subsequent waves of marijuana and cocaine [9] and in the in the case of the crisis that fentanyl is causing, what is required is that both countries assume their responsibility. He explains that in Mexico and the United States, police and authorities whose power is to combat drug trafficking, in reality, are in charge of protecting the movement, in exchange for money. Such is the case, abounds, with governors of border states on both sides. Until now, with respect to the fight against drug trafficking, the United States provides the weapons and the consumers, and Mexico provides the drugs and the dead, victims of that war.

Up to now, this public health problem in Mexico has reached an apparently low level of demand and consumption, although it remains invisible due to the lack of political will (for example, the National Survey of Additions, published every five years, during the present gov-

ernment did not was carried out), as well as medical, psychiatric and mental health personnel, coupled with the lack of options for measuring this problem in medical and care centers, which prevents knowing the magnitude of the problem objectively and quantitatively.

Faced with this reality, the Forensic Medical Service (SEMEFO) of Mexicali, in the state of Baja California, applied rapid tests for drug use, including fentanyl. The results show that of 100% of the samples, carried out between June and August 2022, 55% were positive for the use of any drug and 33% were positive for fentanyl. This is already the second most consumed drug in Mexicali below methamphetamine [3]. But this measurement was only made in a single (border) city in all of Mexico.

Despite the findings, SEMEFO cannot determine that a death was due to a fentanyl overdose. Although the tests indicate consumption, they do not reveal the amounts of drugs, so the data does not describe what is happening at the national level. With this, the real dimension of the phenomenon is unknown and ignored in the rest of the country. The policies of the Government of Mexico regarding addictions are too ambiguous (as in the case of the regulation of marijuana) and with measures executed suddenly (as in the case of the closure of psychiatric hospitals). The highest authorities treat addiction as a “lack of character” problem, stigmatize their users and use the National Guard to harass users and break syringes -- increasing the risk of HIV and hepatitis. It is a view that is slowly gaining momentum that the alternative that may work in the long term is to allow people to consume in controlled places in order to increase their likelihood of being referred to treatment, otherwise most overdoses in Mexico they will continue to be classified as cardiac arrests [10].

Unlike what happens in the United States, where death from overdose is a data that can be known in a virtually reliable way (more than 100,000 people die each year from overdose, 80% due to opioids, a figure that has increased 850% in two decades, according to the National Center for Health Statistics (NCHS), in Mexico the count has only been made from people who died from drug use who are taken to SEMEFO or public hospitals, so that the mortality rate from overdose is unknown [11].

In Tijuana, the Red Cross and the Forensic Medical Service of Baja California (SEMEFO) agree on an increase in deaths, while in the first four months of the last four years deaths from overdose increased. As of 2017, they have detected a sustained increase in overdose deaths. However, since SEMEFO staff do not perform the exams, they cannot be cataloged or recorded in this way [3].

Activists, academics and authorities agree that this state is where there is more consumption of fentanyl mixed with other drugs [12]. According to the National Commission Against Addictions, (CONADIC). The Mexican Observatory of Mental Health and Drug Consumption [13], which depends on CONADIC, reports a registry of deaths derived from the use of opiates of only 105 deaths in the country, which occurred from 2011 to 2020. Obviously, these data are not reliable.

In Baja California, since 2004, civil organizations such as Prevensa, A.C. [14] and Integración Social Verter [15] promote the fight against overdoses and associated diseases. They operate without public resources, with international donations (particularly from the United States and Canada) and with the constant harassment of drug users by the Army and the National Guard. Their strategies consist of the change of syringes to reduce the spread of diseases, medical programs, free access to showers and drinking water, as well as the testing of substances to detect fentanyl and warn the consumer of its effects. “Fentanyl is being consumed by Mexicans, but this community does not interest them because it is in street conditions. It is not a voter, it is people that the government does not care about”, criticizes Alfonso Chávez, coordinator of Prevensa programs. “It is a throwback of more than a decade of drug policies. The government criminalizes more, stigmatizes more and supports less. It is a deadly combo”, says Jaime Arredondo Sánchez, academic and founder of Verter [15].

The fentanyl triangle

In May 2013, the first fentanyl seizure was recorded in Mexico, in Baja California Sur. From there, the presence of the drug has increased by 500% between 2015 and 2022. Culiacán, Sinaloa; Tijuana and Ensenada, Baja California, and San Luis Río Colorado, Sonora,

which form a triangle of production and transfer of fentanyl. In these states where the most important drug cartels operate mainly (the Sinaloa Cartel, the Jalisco Nueva Generación Cartel, and others) and 99% of the fentanyl seizures are concentrated.

According to reports from the United States Department of Justice. From 2019 to July 2022, the United States Customs and Border Protection seized 12,348 kilos of fentanyl. According to this agency, 60% of the fentanyl that is seized in that country enters through San Diego, California, border with Tijuana, Baja California. The same phenomenon occurs in Sonora and its border with Arizona, where 25% of all fentanyl seized in the United States enters.

The Executive Summary of the World Drug Report 2020, from the United Nations Office on Drugs and Crime [16], argues that the ease of manufacturing and low production costs, as well as the scant regulation of many of fentanyl analogues or its precursors keep these substances available in the pharmaceutical and illicit markets, making it difficult to detect and prevent their use.

Conclusion

The title of this short work obeys something that is widely known. Drug use, in this case fentanyl, and its treatment is a psychological problem, but not only. As has been emphasized throughout the work, there are historical, social and dependency factors between countries, which lead to drastic situations such as those currently suffered with fentanyl and other drugs. This reflects the lack of efficient health policies on the part of the countries involved, as well as the collusion of authorities from those countries that protect even the movement of drugs and people.

The task to face in fentanyl trafficking, which is particularized in this case because it is the one that to date presents the most dramatic and visible consequences, consists of retaking, among others, the aspects mentioned here, and, based on them, formulating effective health and education policies for the population, so that violent repression is not how the problem is faced, as has been the case of fifteen years of war against drug trafficking in Mexico, even when high authorities are at the same time their accomplices, some are under process in the United States, or blame other countries for the problem [17] and offer, instead, universal prevention education, little favored by governments because they do not offer immediate results, as well as material and economic resources, in addition to sufficient specialized personnel in quantity and quality to accompany and support in the treatment of people who have fallen into drug use and dependence.

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