

Patterns of heroin use in a sample of consumers in Medellín – Colombia

*Patrones de consumo de heroína en una muestra de consumidores de Medellín – Colombia**

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Abstract

Introduction: In Colombia, there are no specific studies on the prevalence of heroin use. This paper reviews the patterns of substance use in a consumer group in the city of Medellín and its metropolitan area, showing that consumption is becoming a threat to public health due to the particular forms of consumption, among which risk practices are included. **Objective:** To evaluate the use of heroin in the city of Medellín and its metropolitan area. **Methods:** The study took a mixed approach using multiple-case study to cover each of the variables and categories proposed; 42 heroin users of treatment centers in the city of Medellín and its metropolitan area were accessed between July and September 2008, using the "snowball", technique. Information was collected by a structured, face to face interview, asking about the type of heroin consumed, routes of administration, frequency of consumption, equipment used, consumption practices and rituals that accompany these practices. Quantitative data were analyzed using the EPI-Info statistical package 2,000 and Atlas ti qualitative, version 5.5, for Windows. **Results:** Consumers were predominantly male, single, aged between 18 and 23 years, childless and many had not completed college. Most respondents were in the middle socioeconomic stratum, had a family history of psychoactive substance use and had started heroin use between 15 and 17 years. There are special forms to name heroine, consumers, and rituals to consume the substance. The article gives details of the heroin consumed, the paraphernalia and associated practices. **Conclusions:** The use of heroin is an emerging reality in Colombia. Qualitative-quantitative studies are necessary to allow us to acknowledge and understand more about this phenomenon in order to decrease the impact on public health

Keywords: Heroin. Medellín. Colombia. Consumption patterns.

Resumen

Introducción: En Colombia no existen estudios específicos de prevalencia de consumo de heroína. Este artículo evalúa los patrones de consumo de esta sustancia en un grupo de consumidores de la ciudad de Medellín y su área metropolitana, evidenciándose que el consumo empieza a ser una amenaza para la salud pública por las particulares formas de consumo, entre las que se incluyen prácticas de riesgo. **Objetivo:** Evaluar el consumo de heroína en la ciudad de Medellín y su área metropolitana. **Métodos:** La investigación tuvo un enfoque mixto mediante el estudio de casos múltiples hasta saturar cada una de las variables y categorías propuestas. Se accedió a 42 consumidores de heroína de centros de tratamiento de la ciudad de Medellín y área metropolitana mediante la técnica de “bola de nieve”, proceso que se realizó entre los meses de julio y septiembre de 2008. La información se recolectó mediante una entrevista estructurada, cara a cara, que consultó el tipo de heroína consumida, vías de administración, frecuencias de consumo, utensilios utilizados, prácticas de consumo y rituales que acompañan estas prácticas. Los datos cuantitativos se analizaron con el paquete estadístico EPI-Info 2.000 y los cualitativos con Atlas ti, versión 5.5, para Windows. **Resultados:** Los consumidores eran predominantemente hombres, solteros, con edades comprendidas entre los 18 y los 23 años, sin hijos y muchos con estudios universitarios no terminados. Mayoritariamente se ubicaban en un estrato socioeconómico medio, tenían antecedentes familiares de consumo de sustancias psicoactivas y se iniciaron en el consumo de heroína entre los 15 y los 17 años. Tienen formas particulares de nombrar la heroína, los consumidores, y poseen rituales propios para consumir esta sustancia. En el artículo se presentan detalles de la heroína que consumen, la parafernalia y las prácticas asociadas a dicho consumo. **Conclusiones:** El consumo de heroína es una realidad emergente en Colombia. Es necesario ahondar en estudios cuanti-cualitativos que nos permitan conocer y comprender más este fenómeno con el fin de disminuir su impacto en la salud pública.

Palabras claves: Heroína. Medellín. Colombia. Patrones de consumo.

Introduction

The UNODC estimates that in 2009 between 12 and 21 million people around the world have consumed opioids, and three quarts of them have done heroine, that is, about 375 tons of this substance. Europe and Asia are still considered the main consumption markets, the first with three million consumers and the latter with a little over six million⁽¹⁾ (UNODC, 2011).

The UNODC calculations in the World Drug Report 2012 on opioids consumption, especially prescribed ones in America is: 1.290.000 consumers in North America, 100.000 in Central America, 60.000 in the Caribbean, and 840.000 in South America⁽¹⁾. In USA and the northern Mexican frontier there was data on the heroin consumption, however, it was unknown in the rest of the continent. Half way through the decade 2000, there are cases in treatment centers in the main cities of Colombia and recently the Inter-American Drug Abuse Control Commission /OAS reported cases in the Dominican Republic, Honduras and Chile.⁽²⁾

In Colombia, there are no specific studies on the prevalence of heroin consumption. There have been some reports regarding such consumption, without specific information on method of administration; they show an increase of the prevalence, though, a comparison cannot be established due to the different samples and methodologies used. The first consumption report on this drug in the country dates back to 1992 in the First National Study on Mental Health and Psychoactive Substance Consumption⁽³⁾, showing life and annual prevalence that did not reach one out of one thousand in the general population. The same study carried out in 1997 reports a 12 out one thousand in the annual prevalence⁽⁴⁾. A research project carried out with young people between 10 and 24 in 2002 showed a life prevalence of 11 out one thousand⁽⁵⁾. Finally, a recent study carried out in 2008 shows statistics that display a life prevalence of 19 out of one thousand and annual and

Table 1 – Prevalence of heroin consumption in Colombia, 1993-2008.

Tabla 1 - Prevalencias de consumo de heroína en Colombia. Datos reportados entre 1993 y 2008.

Study	Prevalence
First National Study on Mental Health and Psychoactive Substance Consumption. ⁽³⁾	Life prevalence: 0,5 per one thousand. Annual Prevalence: 0,6 per one thousand. (general population)
Second National Study on Mental Health and Psychoactive Substance Consumption.1997 ⁽⁴⁾	Annual Prevalence: 12 per one thousand. (general population)
National Survey on psychoactive substance consumption in Young people between 10 and 24 years of age. Colombia, 2001. Rumbos Program. Presidency of the Republic. ⁽⁵⁾	Annual Prevalence: 6 por mil. Life prevalence: 11 per one thousand. (Young people between 10 and 24)
National study on psychoactive substance consumption in Colombia. 2008. Secretary of Social Protection and Narcotics National Direction. ⁽⁶⁾	Life prevalence: 19 per one thousand. Annual Prevalence: 2 per one thousand. Month prevalence: per one thousand. (general population)

Fuente: Construida por los autores / Source: Developed by the authors

monthly prevalence of two out of one thousand (6). Table 1.

The consumption patterns of this substance are associated to the dependence degree and the biopsychosocial risks that can affect the individual and have important consequences on public health. The problems caused are related to the method of administration are: hepatitis, abscesses and infections, cellulitis and HIV/AIDS through infected needles as well as related to the attitudes and behaviors: criminal behavior, accidents, family issues, educational

dropout and unemployment ^{(7),(8)}

There are many evidences of morbidity caused by this substance. Giner et al.⁽⁹⁾ summarize the effects produced on the body by heroin consumption in the following table.

The opioids forms of abuse and dependence are as varied as the cultural means and ends of the consumption. As well as, the beliefs and customs of the people that consume these substances for example a business man in Southeast Asia usually inhales an opioid pipe before going to bed, some Chinese usually drink an opioid brew

Organ system	Effect
Respiratory tract	Decreased respiratory frequency and respiratory volume, changes in breathing pattern, slight bronchospasm.
Circulatory system	Hypotension, bradycardia
Central nervous system	Euphoria, respiratory arrest, somnolence, myosis, altered muscle coordination, central and nontraumatic peripheral neuropathy
Digestive tract	Frequent tooth cavities, periodontitis, loss of teeth, gingivitis, glossitis; esophageal varices, GI ulcerations, decreased digestive fluids, constipation and increased biliary tract pressure
Blood	Erythrocytosis with reticulocytosis, leukocytosis, decreased platelet count, idiopathic thrombocytopenic purpura
Genitourinary tract	Increased vesical contraction, decreased urinary glow, decreased testosterone, impotence, lower sperm count, inhibited ovulation and menses
Autonomic system	Insomnia, profuse sweating, nausea, chills, rhinorrhea.

Tomado de Giner et al (2001).

in water and a young person who consumes heroin in Great Britain frequently prefers to smoke it in order to avoid the medical risks of injections and the legal aspects implied by holding a hypodermic needle with traces of opioids. ⁽¹⁰⁾

The consumption prevalence is usually in males and this is probably due to the fact that men prefer higher risk consumption than women. ^{(11), (12), (13).}

The purpose of the study is to describe and analyze the heroin consumption patterns in a sample of consumers in Medellin and its Metropolitan Area, in order to show the risk of consumption practices, propose prevention alternatives and motivate other researchers to carry on with studies and contribute to the knowledge of this issue in Latin America; for heroin is being produced and consumed in Colombia and there is a high risk that it will extend to other countries of the region.

Materials and Method

This research project has a qualitative-quantitative design, through a multiple case study. The recruitment of participants for the study was done through drug consumption treatment centers in the city of Medellin and its Metropolitan area through a “snow ball” technique. The number of participants was closed once the categories were filled, the sample was therefore intended and it finally came to be of 42 heroin regular consumers. Reaching this number was quite hard, due to the access difficulties to consumer population in general and especially to heroin consumers because it is still a minority, merely emerging group in Colombia.

A structured interview was used as a qualitative technique to gather information because it is considered the most appropriate way to reach the objectives of this study since it is a way to collect descriptive data based on experiences and the word of person directly involved in the practices of heroin consumption. The question guide was written by the researchers

based on the existing literatures reviewed and validated by three professional experts in the field of drug-dependency and who have had contact with heroin consumers. Besides, a pilot was carried out with three heroin consumers in order to validate and to tune up the instrument. The interview was carried out face to face and for about 40 minutes. The questionnaire gathered the needed information on the characteristics of the consumption and the consumers. There were also some demographic data as information regarding age at which consumption began, patterns and heroin consumption frequency at the time of the interview were required; this information became the quantitative component of our research project.

The hypothesis to be tested was the similarity of the consumption and consumer characteristic to those of heroin users in other countries.

The interviews were done by four professionals: a specialist in pharmaco-dependency and three psychologists undergoing the process of specialization in the same field, they all have deep knowledge on the topic and study context of the city of Medellin and its Metropolitan Area. The interviews were agreed on through the treatment center directors and the consumers that were institutionalized in them. For the contacts gotten from the “snow ball” technique a place for the interview was scheduled. No economical retribution was paid for this participation.

The quantitative data were analyzed using EPI-Info 2.000 and the qualitative data with Atlas ti, version 5,5 for Windows. The analyzed categories were: characteristics of the substance, consumption and consumers. The data processing included a phase of codification. First, the contents of the interviews were described per question based on the transcriptions then the information was grouped into paragraphs depending on the emerging categories and making “hermeneutical” units. Then, came the inferential and tendency analysis, focusing on similarities and differences, it was

contrasted with information from secondary sources, afterwards, the findings were written and supported through arguments and paralleled with the interpretation of the research group.

The ethics code that this type of research requires was strictly followed in aspects related to: permissions to record the interview, anonymity and confidentiality was guaranteed. All the interviewees signed an informed consent in which they stated that they voluntarily participated in the study and they were entitled to withdraw from it at any moment and authorized using the data for academic purposes. The study underwent the evaluation of the Research Ethics Committee at Fundación Universitaria Luis Amigó, it was approved and overviewed by this committee.

Results

Sociodemographic characteristics

The heroin consumers in this study are mainly male 80,9% (34) and the participant females were 19.1%(8). the age of the consumers who were interviewed is between 18 and 23 years, 59,5% (25), 26,1% (11), were at the moment of this study between 24 and 30 years old and the other 14,2% (6) were older than 31.

Most of them (37) 87% are single, 04 (11%) were remarried and one was a widower (2%). Regarding their schooling level the information was: 38% (11) of them did not graduate high school, 45% (19) are going to college; (4), 9.5%, hold technical degrees and only one (2%) had no schooling.

The sample included all socio economic strata, with a higher presence of middle and low middle classes, the first with 40% (17) and the latter with 42% (18). The other ones had 06 consumers from low class (15%) and one consumer from high class with (3%).

Age heroin consumption began

It is interesting to observe that the initial consumption of heroin begins at older ages than other drugs. Among all the people that were surveyed 71% of the heroin consumers were between 15 and 20 years old for their first heroin experience. However, the percentage (18%) of them who tried it for the first time when they were adults stands out. Table 2.

All the heroin consumers began with marijuana between the age of 8 and 12. None of the consumers began directly with this opioid. When they came to this substance they were all poly consumers.

All the participants informed that they were poly consumers, the consumption of alcohol stands out, as well as marijuana, cocaine, recreational and non-prescribed medicine as the most frequently used. Almost all of the participants (95%) used marijuana, their starting drug more than three times a day.

For all of the participants heroin is the drug with the highest impact. Most of the consumers (95%) used it more than three times a day.

All of the people that were interviewed consumed heroin, but not all of them became immediately addicted. 90% of them experimented with it and stopped

Table 2 – Age of initial heroin consumption.

Tabla 2 - Edad de inicio consumo de heroína.

Age	Number of consumers	Percentage
15 a 17	15	36%
18 a 20	15	35%
21 a 23	5	11%
24 y mas	7	18%

using it for a period of 03 or 04 months and then used it again, this time they became addicted.

Names for heroin

The most frequent name heroin consumers in Medellín use for the substance are “H” (43 people), similar to this name others call it: “*hachechina*”. Other names related to the color of the substance are: “*La mona*”, “*el quipito*” (due to the brownish milk color), “*chocofan*” the name that some of the people that were interviewed gave to the Californian modality that is similar to dough in water and lemon. Other words used by the consumers were: “*merca*”, “*caballo*”, “*guajiro*”, “*guache*”, “*lonchugas*”, “*chanchenco*”, and speed-ball when mixed with cocaine.

Names for each type of consumption and for the consumers

There are different names that heroin consumers use for each consumption, these are highly related to the method used to introduce the substance in the body. They generally refer to the consumption as: flight, trip, “let’s go to sleep”, many of these names are related to the downers and hallucinogenic effects of heroin and “the cure”, “the medicine” when they need relief from not consuming and the beginning of withdrawal symptoms.

When the consumption is carried out through the nasal way-inhaled- consumers name it as “pass” or “*lance*”, the same names are used for cocaine taken this way; “*esquir-lazo*” if both nostrils are used and “*limp*” if only one nostril is used. If it is smoked, they use the name: “*shot*”, “*chasing the dragon*”. The latter name catches one’s attention since they refer to a technique used in Asian countries.

When the administration method is intravenous, consumers name it: “*shoot*”, “*prick*”, “*pinched*” all these names are related to the act of introducing a needle in a vein.

On the topic of how drug consumers name heroin users, the people that were interviewed use a lot of different names, some very general ones and some related to the administration method. Regarding the general names some are: “*heroin maniacs*”, “*haches*”, “*hacherolos*”, “*hachinos*”, “*hachesinos*”, “*hachenáutas*”, “*hachechinos*” all these names are based on the way the substance is named “H” (-hache- *in Spanish*) and “zombies” because of the way a heroin user looks when under heroin effects.

The consumers that inject themselves are called: “yankees”, “junkies”, “*pinchetos*”, “*chutaos*”. If the method of consumption is inhaling then they are known as: “*güelengues*”, and if it is smoked they are known as “*gunman*” because they “shoot” themselves.

Morphological characteristics and presentation of the heroin available in Medellín

Overall everyone agrees that its color is brownish with some variation towards “creamy” beige or yellow; few speak of the white heroin. Another characteristic is that it is a powder with sand like feel, the smells like a “drug store”, “sweet butter”, “glue” and “ether” and it has a “sour” taste. The most common presentation in the market is in small plastic zip lockbags as well as in folded paper like a firecracker.

The consumers identify the quality of the substance through its cost, color (tone), texture (tactile sensation); the taste (the aftertaste it leaves behind on the throat when it is smoked or inhaled), solubility (in cases of injectable consumption) and finally because of the psychodysleptics effects produced by the substance. The degree of refinement the consumers have regarding the purity of the substance without sophisticated lab tests definitely stands out.

All of the consumers that were interviewed express that the more expensive the heroin, the better it is. Many of them state having consumed cheap, low quality heroin, due to lack of money and the urgency to consume the substance because

of the terrible sensations when they do not consume. They acknowledge that consuming low quality heroin creates an anxiety to consume quicker, to feel less the effects and therefore increase the levels of consumption.

Regarding the color they say that in Medellín and Valle del Aburrá, they can get brown, black and white heroin. The latter according to most of them (38 people) is of the highest quality. According to them, the one they most frequently find in Medellín and Valle de Aburra is “light brown”, they say that the lighter the better. However, few of them (04 people) consider that the darker it is, the higher the quality. Some testimonies regarding this issue:

“Yeah, the lighter, the better.....the very light yellow....it is the best quality.” (Interview #8)

“I would tell it apart by texture and color, if the color was sort of opaque, very brown and very dark, it was of a lower quality, the less pure it was. The white one is the best.....” (Interview #16)

“...the quality depends on the color, if it is very brown, it is pure, and if it is like brownish with white, it’s bad, it’s sour” (Interview #23)

Texture and solubility are other characteristics that heroin consumers consider have to do with the purity and clarity. The one that is soft to the touch, not greasy, not lumpy and that spreads easily over a surface and crushes is considered to be the best.

“.....I know it is good when I crush it. If I crush it and comes out in tiny pieces,...it’s good..., if there are lumps or bigger pieces, the quality is poor.....” (Interview #49)

“...the purest heroin is not raspy, the bad heroin, when you are chopping it on paper, it feels like sand, like it “screeches” the paper, the pure heroin is whiter and when you chop it on paper, it doesn’t “screech” (it makes no sound whatsoever)” (Interview #39)

Regarding the taste, they established that the sour taste on the throat when they smell or inhale the substance speaks of its quality.

“Because of the taste, when you inhale it, it goes down the throat like a sour substance and if it is sour, the heroin is very good. If you do not feel that, it’s because it’s not good” (Interview #40)

The users that take it intravenously to talk of its quality refer to the solubility and relate it to the cuts the “dealers” (people who sell small quantities) make to make the substance last more, these testimonies illustrate these aspects and their correlation:

“...there was a time, that... they were mixing heroin with “*chocolisto*” (chocolate powder drink), when you tasted it you could sense the sourness but at the same time... also feel....the taste of chocolate, and you mixed it and it was bubbly, and the needle would get clogged and that meant the heroin was bad. I remember once I bought heroin, I tasted it and it was like powder milk....” (Interview #12)

“...you dissolve it, if it dissolves without heat it’s pure heroin, that’s how you know. The bad one doesn’t dissolve easily....” (Interview #2)

Finally, regarding the quality and the substance effect, the interviewed consumers acknowledge that the high quality heroin has more intense effects that last longer.

“The good one, I would inject myself and I immediately felt how it laid a hold of me and drug me, but the bad heroin... I would start itching all over, feeling bad; it basically was like nothing happened.” (Interview #41)

“The bad heroin, basically does nothing to you, it sort of calms you down, and the pure heroin is....total calmness and very pleasurable”. (Interview # 23)

“...a good one can go for about eight or nine hours, and you do not feel as anxious to consume immediately. The one that’s bad, you immediately feel the need to “junkie up” again; the effect does not last very long” (Interview #22)

Methods of administration and reasons for preferences

Out of the 42 consumers that were interviewed 57% (24) inhale it, 24% (10) consume

it intravenously and 19% (9), alternate between smoking it and inhaling it.

Regarding those that inject themselves (10), the people that were interviewed say that the most common places for the shots were: arms, wrists and the back part of the foot. The reasons to prefer these places were: "easy access to the veins", "you can feel them and see them" and the foot "to avoid being given away by the marks"

Also, along the preference for intravenous administration, the informers expressed that as time went on, consuming any other way did not produce the same pleasure, since their bodies had developed tolerance to the effects of the heroin and this brought them to look for other means of administration in order to feel the sensations the drug gave them in the beginning. Also, others say that they changed to the intravenous way because when they consumed it this way, they needed a lower dose; they saved money, because they needed less heroin and also because the effects were faster and lasted longer.

On the other hand, the ones that prefer not to inject themselves (32), 09 preferred not to do so because they were afraid of needles, 08 stated that intravenous administration is more dangerous than the others, 04 considered that injecting made them more addicted, 04 expressed that this type of consumption had a higher risk of overdosing or dying in their sleep and 02 thought that the withdrawal symptoms were higher. Finally, 05 of the interviewed people openly expressed that they did not inject themselves because it left marks all over their bodies and they knew other consumers that did it and had "degrading" marks; that kept them away from this type of administration.

Finally, the ones that prefer inhaling defend it saying it is simpler, faster, less flashy (more discreet) and that doing it in this way they do not lose control that much.

Quantities and costs of the consumed heroin

Regarding the consumed doses, the

tendencies in the analysis of the data provided by the 42 users that were interviewed showed that 21% (9) consume about 0,25 g/per day; 25 % (11) between 0,5 y 0,75 g/per day; 34 % (14) 1 g/per day; 8 % (3) 2 g/per day; and 12 % (5) consumed more than 2 g/per day. The inhaling administration method reports the highest consumption frequency an average of every 2-3 hours; while intravenous consumption spreads out the most, an average of about 6-8 hours. They all acknowledge that as consumption increases, so does the quantity of heroin, thus denoting the development of tolerance in consumers. Figure 1.

Regarding the cost of the heroin, we observed how one of the participants stated that he spent under \$10.000 Colombian pesos (US 4,50 dollars) to buy heroin, a high percentage of the people in the sample which included 37 people expressed that they spent between \$10.000 to \$40.000 Colombian pesos (US 5 to 21 dollars) on a daily basis. Only 04 of them stated that they invested more than \$40.000 Colombian pesos (more than US \$21 dollars) on a daily basis to consume the substance.

Referring to the question who do you buy the heroin from? We observed a continuous worry of the consumer regarding the quality of the product, therefore, most of them emphasized on the importance of creating groups or networks that can establish a trust bond between consumers and "dealers". This way, they can counter-attack the risks of "low quality", "mixtures" and "cuts" that can go anywhere from poisoning to reducing effects, possibly even death.

Even though some of the people that were interviewed acknowledged that heroin is a restricted substance, on the issue of how easy it is to get it, they stated that they are in the world of consumption and it is easy to get. In 28 of the cases, the interviewees buy heroin from close people: friends or trusted people. This closeness gives them the security of the quality, availability, frequency and even credit margin.

On the other hand, 14 of the consumers

Cantidad de consumo

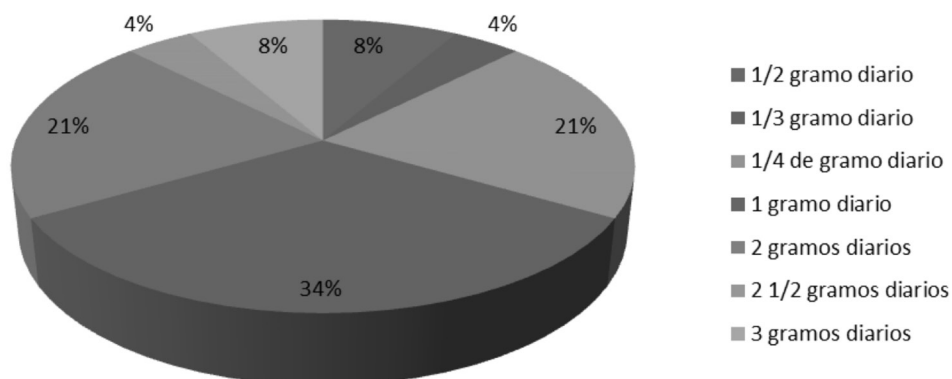


Figure 1 – Amount of heroin consumed.

Figura 1 - Cantidad de consumo de heroína.

buy from “dealers” who are available 24 hours and that guarantees the availability of the drug. There are two types of circumstances, on one side, there is the consumer that knows the place where the drug is sold and goes over there to buy it; on the other side, there is the “dealer” that can be contacted through a mobile phone and this person moves around the city for security reason and when called informs the whereabouts of their current location or delivers the drug. Table 3.

Elements used in the administration of heroin.

In heroin consumption practices elements are used depending on the method of administration. To inhale there is a straw or a pocket knife or an id card, to extract the substance from the little bag and introduce it in the nose.

When injected they use an aluminum tray or spoon or even the backside of a can or a soda bottle cap that hold some liquid, a lighter to warm up the heroin, insulin needles, distilled water, tap water, alcohol or any type of liquor to dissolve the drug, a tourniquet (a belt, shoe laces or by pressuring with the legs) and sometimes cotton or a cigarette filter.

The smoking method requires aluminum

foil, a straw or a rolled up piece of paper or carton and a lighter. Table 4.

Consumption ritual

Getting to know the rituals associated to drug consumption brings important elements to prevent morbidity related to the administration methods and the use of inappropriate consumption techniques.

The first step for heroin consumption that all the consumers follow is to get all the necessary elements depending on the method of consumption. The details of consumption rituals are described in table 5.

Places of consumption

There are many places used for heroin consumption, both public and private. The bathrooms, their houses, friend’s houses, city parks, university green zones, discos and bars, cars, parties and country homes.

With whom do you consume heroin?

Twenty seven of the interviewed patients consume with friends and develop group practices around heroin. Most of the consumers attribute this preference to the fact that the group can share the expenses to buy the doses and maintain common rituals;

Tabla 3 - Descriptivo de patrones de consumo de heroína en Medellín (N = 42).

Table 3 – Patterns of heroin consumption in Medellín (N=42).

VARIABLE	RESULTS
Method of administration	Inhaled (24) - 57.1% Intravenous (10) – 23.8% Alternate methods to Inhaled and smoked (8) – 19.4%
Consumption quantity	0,25 grms/per day = 21% (9) 0,5 -0,75 grms/per day = 25% (11) 1,0 grms/per day = 34% (14) 2,0 grms/per day = 12% (5) Más de 2,0 grms/per day = 8% (3)
Consumption frequency	Inhaled method – smoked = average every/2-3 hours Injected method= average every/6-8 hours
Parts of the body to inject	arms, wrists and back of the foot =23,8% (10)
Type of heroin	White, Brown sugar (brown) and black.
With whom do you consume heroin?	With others (friends, couples, family members, or people) = 61,9% (26) alone = 38,1% (16)
Places of consumption	their houses, friend´s houses (bathrooms, bedrooms, kitchen, TV room, library) Public bathrooms Streets and city parks university (green zones) discos and bars cars country homes parties hotel bedrooms crack houses (“ghetto”)
Mixture with other drugs	Marihuana, cocaine, Benzodiazepine, tobacco, alcohol, crack, Methadone, LSD
activities done while consuming heroin	listen to music, watch TV, work out, sleep, watch videos, draw, paint, drive, talk, surf the web, listen to the radio, read, write, play video games, play musical instrument, play cards and make love.

also they can get back up in case of an overdose risk. Some testimonies show this:

“It was always good to consume it with someone else because you know that it is a very dangerous drug, and all of a sudden, if you do not know how to consume it, you can, at once, cause an overdose and being with another person gives you a sense of security and if something happens your

partner can help you” (interview #4)

“There are some symptoms that we pay attention to: we look at lips, if they turn blue, you touch the heart, but main thing were the lips, if they were purple it´s because the person had a cardiorespiratory arrest, immediately to the hospital, that is what we did, take care of each other.” (interview # 32)

On the other hand, sixteen of the

Table 4 – Paraphernalia associated with heroin consumption.*Tabla 4 - Descriptivo de parafernalia asociada al consumo de heroína.*

Oral administration	Nasal administration	IV administration
Aluminum foil, bottom part of a bottle or can, any kind of shiny wrap paper	Card, id card, cd	Tira de tela, cordón de zapato, tira de un brasier, correa, calcetines, media velada, cualquier elemento de estos usado como torniquete
Straw, tube, pen, rolled up bill or paper to absorb the smoke	Thin Straw	Agua destilada, agua de la llave, licor o alcohol (previamente hervido)
Lighter or matches	Key, pocket knife, blade or nail clipper lever, paper clip	Metal spoon
		insulin needles
		Lighter or matches
		Cotton or cigarette filter

Table 5 – Rituals associated with heroin consumption.*Tabla 5 - Descriptivo de rituales para el consumo de heroína.*

Injecting	Inhaling	Smoking
1. Dissolve the heroin with wter (distilled or tap, or alcohol) in a metal spoon.	1. Chop the heroin on a flat surface and clean it with an id card or a blade (NOT ALL THE PARTICIPANTS HAD THIS CUSTOM)	1. Previously when the aluminum foil is new heat it up enough so when you burn it there isn't a lot of smoke.
2. Warm up the mixture so it can be totally dissolved (THIS STEP IS NOT A GENERALIZED CUSTOM FOR ALL THE PARTICIPANTS)		2. Place the drug on top of the aluminum foil.
3. Put the mixture into the needle. Sometimes a Little piece of cotton is placed there and if it is not available a cigarette filter in order to avoid lumps as well as impurities clotting the needle	2. Take a piece of it through a straw, blade, the tip of an id card or a key and inhale	3. Heat the aluminum foil underneath.
4. Push the air out of the needle		4. Inhale the smoke through a tube or rolled paper.
5. Place a tourniquet in the zone of the body to be injected.		
6. pinch the vein and let a Little blood out (it gets mixed with syringe) to make sure it is in the right place. Slowly inject. ##Sometimes the substance is injected and immediately taken out again—the pump technique—produces a greater pleasure		

interviewed consumers agreed that they prefer solitary consumption; they claimed that this decision is based on maintaining anonymity and addiction a very intimate world, and they can do it without being observed or judged by others.

Nine of the consumers consumed heroin with their couples in order to establish a love tie, take care of each other and experiment pleasurable sexual intercourse.

"I had a girlfriend who used to consume with me. The ritual with her was basically the same one I did when I was alone, but with her we were naked and we played some music and played movies...I would inject her and she would do me and we would go to bed to wait for the trip to pass, we slept naked, in the beginning we would have sex quite often, but with time you lose interest." (interview # 8)

Two of the consumers did it with family members (uncles, cousins) and two consumed in public places with unknown people.

Out of the 42 people that were interviewed, ten (23.8%) have used intravenously and six of them (14%) have shared needles and paraphernalia (water, soda caps or spoons to dissolve the heroine, cotton to filter the substance, etc.)

Heroin consumers' drug mixing

Different epidemiological and quantitative studies on the characteristics of heroin consumers have shown that they usually are poly consumers (12). In this paper one can evidence a high tendency among the interviewed heroin users to mix drugs looking for different effects. In some cases, consumption was done simultaneously and in other cases it was done between heroin consumptions. Many of the cases of intoxication and overdose symptoms referred by the consumers were caused by substance mixing. The drugs the consumers usually mix are:

- Out of the 42 heroin consumers 16 of them mixed it with marihuana (so called "cagaito", "dulcecito", "cooper", "merco"

or "nevado").

- Fourteen of them mixed it with cocaine (so called "speed ball", they pronounce it: "spilwold", "espir", "spirpool", "spik" or also called "coffee with cream"—characteristic color of this mixture--).
- Eight of them claimed to have mixed heroin with pill like benzodiazepine.
- Five consumers mixed heroin with cigarettes, however, this research project did not establish whether it is used under the technique known as: shooting an anti-aircraft gun <<ackack>> (in this technique heroin powder is pushed into one extreme of the cigarette, the person has to smoke the cigarette upwards so the powder doesn't fall out, this position is similar to an anti-aircraft gun). A variation of this technique is smoking cigarettes that have heroin in them.
- Four of them mixed heroin and alcohol (liquor). Heroin and crack, heroin and methadone and heroin and acids (LSD): each one with one reference.

When you do not get heroin, what substance do you use to replace it?

The dependence produced by heroin and the consequent withdrawal syndrome when it is not taken brings consumers to use other type of substance to feel better. In the substances that are consumed by the 42 people that participated in this study we found these mixtures: Rivotril (benzodiazepine) and marihuana; Rivotril, cocaine and alcohol; tramadol, codeine, methadone and morphine (opiate derivative) and Rivotril, carbamazepine, akineton and hydroxyzine. It is important to notice that none of these medicines were formulated by a doctor, they were self-prescribed and many of them bought in the black market.

Parallel activities to heroin consumption

In the interview analysis a great number of activities that the consumers do during their consumption practices came up: most of them listen to music (their favorite

genres are: rock, reggaeton (urban music), electronic music, punk, salsa, reggae and hip-hop); watch TV (some of them without volume); have sexual intercourse, exercise (walk, skate, soccer), sleep (because the drug for most of them makes them sleepy or totally relaxed); watch videos or movies, paint (one of the patients for example, says that he tried to take advantage of the hallucinations to draw the abstract scenery that played in his mind), drive (some of them expressed that they liked driving a motorcycle or a car because the speed was magnified), talk to their consumption groups, surf the web, listen to the radio, write, read, play music instruments, play video games or cards.

Discussion

In Colombia, there is only one previous research project on characteristics of heroin consumers and consumption, it is the one done by Pérez Gómez⁽¹⁴⁾. This qualitative research was carried out through interviews to 96 drug consumers who were part of treatment centers in 07 cities of Colombia. From the 96 people that participated in the study, 21 were heroin consumers. The research, though focused on the transitions of drug consumption in the country, openly asked about the characteristics of heroin consumers and the results were: most of the people that participated “do not know” the characteristics of heroin consumers. The rest of the people based their opinions basically on the consequences that heroin produces in the physical appearance and the symptoms of the withdrawal syndrome.

The same author, regarding the method of administration, says that smoked heroin consumption is more common than the intravenous one, but those who smoke it have a tendency to do it in an irregular fashion and not very frequently, while those who inject it tend to do it on a daily basis⁽¹⁵⁾. In the initial stages, smoked heroin consumption is done in groups and they all pay for it, but later becomes an individual activity (to avoid sharing). In our study the most frequent method of administration is inhaled.

The same study explained the transition in drug consumption all the way to heroin, showing a tendency to go from benzodiazepine to heroin. The proportions of consumers between the different social classes reported users from middle class with a rate of 1:3, while low class is 1:8⁽¹⁴⁾. In our study, middle class showed the highest level of consumption.

The age at which consumption begins in the Pérez Gómez study⁽¹⁴⁾ is 16 for females and 21 for males; the rate regarding gender is 1:10 in females and 1:3.5 in males. In our study, the age at which consumption began was higher 64% used heroin for the first time after 18 years old, but about a third 36%⁽¹⁶⁾ did it in adolescent years (between 15 and 17). The proportion of women in our research is much higher 08 women out of 42 participants, this might be due to the fact that the snowball technique was used and consumers refer to their own couples, the ones that begin consuming due to their pressure⁽¹⁵⁾.

The twenty one heroin consumers in this study had a long previous history of consuming other drugs, just like in ours. Heroin, for all of them, became the substitute for all other substances. We also came across this finding. The reasons that they expressed for not injecting themselves are of all sorts, but the ones that stand out have to deal with creating a greater dependence, a higher risk of death, health issues and fear of needles; in our study likewise.

On the issue of socio-demographic profiling of heroin consumers in our country there is no data. The only information is the one presented in this study which matches the studies carried out by Sánchez y Borjano⁽¹²⁾ who in Spain found that heroin addicts were mainly single, childless males, about 26 years old. Whereas in our research they were younger (18 to 23 years old) and with a higher level of education 88,3% had received high school and college education, in Spain, however, most of them had not finished elementary school, this information was confirmed by the authors who also report major prevalence in people

with low academic education ^{(16), (12), (17)}. Regarding marital status similar data was found in studies carried by Amodia et al, ⁽¹⁸⁾; Marina ⁽¹⁹⁾; CerveraValderrama, et al., ⁽²⁰⁾; San Narciso, Carreño, et al., ⁽²¹⁾.

Regarding the consumers gender Gutiérrez, Sáiz, García, Fernández, González, Fernández y Bobes⁽²²⁾ found in their study that heroin consumers were mainly males between 25 and 29 years old, the rate between sexes was 85% male and 15% female; quite similar to our situation (19%) and what most other authors present as well ^{(18), (23), (19), (24), (20), (25), (21)}.

Heroin consumption in females, though prevalence is low, deserves to be mentioned because of the psychosocial and socio-cultural implications that differentiate them. Orte⁽²⁶⁾ affirms that one of the reasons that there are less female consumers might be that males are more prone to dangerous or risky drugs, while women show a higher consumption of legal medicines. The beginning of female consumption is also different. In an ethnographic study by Meneses ⁽¹³⁾ some differences were pointed out: previous consumption of other drugs (tobacco is the most common in all of them, followed by alcohol) for them heroin is the first illegal drug they try (males have previously consumed other drugs); they are familiar with the substance and the environment, that is, they have observed others in their environment (this period is longer in women than in men). The more common methods of administration in women are inhaled or smoked, they are usually started on this substance by another person (possible a couple, friends or family members). They finance their consumption with activities that are not considered highly criminal and they usually do not have a hard time getting the heroin, for many of them do it through prostitution.

According to genre the consequences of being a heroin-maniac are not the same for men than for women, the social stigma is greater on women, especially for their role as mothers and wives. Due to their condition, the consequences are more problematic

due to maternity hood (delegating their responsibilities to others makes it very hard to get their children back, also they have to face the children's possible reproaches for their absence), in a new relationship (it might be difficult for a man to accept their past of heroin consumption because of the possibility of having AIDS), the work market (due to lack of professional education, aspiration, past and stigmatization) and health deterioration usually by genital morbidity like STD, amenorrhea, unwanted pregnancies and abortions ⁽¹³⁾.

Regarding age of starting the consumption, it is important to point out that in our study 36% of the consumers began before the age of 18 which has direct implications in public health due to the possibility of developing a greater dependence and therefore a greater bio-psychosocial deterioration and a greater risk of transition towards intravenous even with the risks associated to bad practices and getting HIV/Aids, hepatitis B and C. Most of the consumers of our study began consumption after the age of 18 and this data matches that of the De la Fuente De Hoz, et al ⁽¹⁷⁾ study.

On the other side and regarding the way consumers name heroin and the nicknames they use to name consumption and consumers, it is important to add that jargon sometimes appears to be universal. This must be due to the globalization of mass media, especially internet which allows themeasy access to information, set up groups through social networks to share their experiences and even provide the substance. Some consumers of our study name heroin as "*caballo*" (horse) the name they use in Spain, like "*chute*" to refer to inject and "*junkie*" for the one that consumes through intravenously ⁽²⁷⁾. The other names that our research provides are closely related to the appearance of the substance and the method of administration. Other names for the substance described by Alvarez andFarre⁽²⁸⁾ are: "smack" ("pasta"), "H" (the name they use in Colombia), "skag" ("white powder"), and "junk" ("*lenguazo*"), "Mexican black tar" ("*goma*"), "*agua de*

primavera”, “caballo”, “Harry”, “leónrojo” or “reina”.

Taking into account heroin characteristics and the aspects described by Stockley⁽²⁹⁾ and confirmed by Gómez⁽³⁰⁾ regarding the color of the substance and the degree of purity, we can state based on the narrations the consumers of heroin provided for this research, that consumers in Medellín and its metropolitan area have access to three types of this drug: brown, white and black heroin; the most common one is brown one or brown sugar. They are being produced by Colombian drug traffickers to be sold in illegal international markets but due to police control, many times it stays in the country and it is therefore sold in local markets.

The heroin named number 3 known as Brown sugar seems to be the type that is more common in the world market. It has originally come from the gold triangle made up of Laos, North of Thailand and Northeast Burma, its aspect is earthy, lumpy, dirty gray, brown, terracotta or pale yellow, its texture is similar to building plaster. The content of heroin is between 25 and 50% and it is generally meant to be smoked. This type of heroin also produced in Mexico and called *Tecata*, has a texture like very dry granulated soil. Its color has different shades of chocolate and it is commonly sold in the American west coast.⁽²⁹⁾

There are also references to Heroin number 4, also known by the Thai or Chinese name, it is the most refined and the quantity of heroin is about 90%, before the substance is manipulated. The color is off white or yellowish and it is fine and spongy. Its texture is that of powder milk mixed with some sugar and it is destined to either be smoked or injected intravenously or subcutaneous.⁽²⁹⁾

In the information that was gathered, there is reference to a heroin that Gómez⁽³⁰⁾ has denominated “Black Tar”, this type of heroin is very common in the American market, especially in the west coast; its appearance is similar to tar or coal rocks, a dark brown color, almost black. This heroin comes from Mexico, and its process is deficient and coarse, it is cut-mixed-with wheat

flour powder; it is sold to be injected, but it is also acquired by some bands that put it through the refining process again to make it look that the Asian one.

The type of heroine that is produced and that is available in the market has important implications regarding the method of administration and its consequent problems. De la Fuente, Saavedra, Barrio, Royuela, Vicente confirmed this in a study carried out in Madrid and Sevilla in Spain; it seems that in the first one there is an almost exclusive circulation of heroin base and therefore it can be smoked, inhaled or injected and in Barcelona the hydrochloride heroin predominates not meant for smoking so the way to consume it is through injection.⁽³¹⁾

Taking into account the methods of administration a paper by Bravo and Colbs revealed that in Spain most users began using heroin by smoking it in Sevilla (88.9%), Madrid (65.6%) and inhaled (46.6%) or smoked (39.7%) in Barcelona. Beginning through injection was rare (4%). Most of them took less than 6 months between the first use and weekly using. In Barcelona, when they began using weekly, the sniffing method had lost its relevance to favor injection and smoking in Madrid⁽³³⁾. These findings were also similar in our study, except for the step towards frequent consumption, from the beginning to the weekly consumption was shorter about 04 months; it is an important aspect to consider because it shows that consumers are arriving to dependence at an earlier age⁽¹⁹⁾. Finally and according to these authors⁽¹⁷⁾ corroborating previous studies by De la Fuente, Barrio, Royuela, Bravo, the method of using heroin can change with time and not always toward injection (considered the most efficient in terms of effect/cost).⁽³³⁾

Very close to the method of administration and to the morbidity that this can cause, it is very important to keep track of injection places; in specialized literature it is very common to find some of the referred places are arms around elbow folds or the back of the hands⁽³¹⁾. It is the same situation in our

environment. However, some other places referred by our consumers like the back of the feet to hide the marks left by this practice called our attention.

A lot of the literature has reviewed the risks of bad practices of injection and the incidence on HIV/AIDS (34) among heroin consumers. Along with infectious pathology, there are also hepatitis B and C also one of the most treated issues in this type of users⁽³⁵⁾.

Now, even though aids and hepatitis seem to have pushed other infections to a second place, it is true that drug users have a risk of getting all sorts of infectious pathologies: cutaneous infections and in soft parts, bone and joint infections, ocular affection, intravascular infections—especially endocarditis—, pulmonary infections including tuberculosis, sexually transmitted diseases and others less relevant like tetanus, botulism and malaria, all these infections associated to parenteral drug addiction⁽³⁶⁾

Some studies have also shed light as to the places where users of this drug consume. Knowing them well is necessary to understand the risks and consequences of practices related to injection, in aspects dealing with aseptic conditions of the places and the accessibility to water to dissolve the substance. Consuming in not ideal conditions can represent abscesses in needle punctures, septicemia, and unnumbered infections. In Madrid and Barcelona, their favorite places to use heroin were the zones of drug dealing and mass drug use, followed by the places where they lived and open spaces (streets, squares, parks, etc.). Whereas in Sevilla they barely consumed in drug dealing and mass drug use zones, showing preference for accommodations, open spaces, and other places⁽¹⁷⁾. The latter one seems to be the tendency of Medellín and its Metropolitan Area consumers, as was gathered in our research. This aspect led us to question the presence of parents and family members, do they not know that there is consuming in their own houses?

Related to the consumption sites, another aspect that has been documented is

related to overdoses, it could have a connection with what has been denominated as behavioral tolerance which could explain some sudden deaths in heroin users. This tolerance would present itself before an expected dose of drug but it would not be there for the same unexpected dose, the environmental condition being whether the quantity of the drug was expected or not. This would explain the possibility that some overdoses take place while administering the drug in an unusual context, whether it is location or company^{(38), (39)}. Likewise, consuming in public zones would be more associated to suffering a deadly or not overdose, probably due to buying in open scenarios where dealers are usually unknown and fluctuating, being this a risk factor itself⁽⁴⁰⁾. Besides, this consumption in open scenes is more susceptible to becoming object of police raids and the fear of these police situations makes them consume quicker when they are in public places and it is more probable that the overdose be attended and not be deadly⁽⁴²⁾.

Another relevant finding is the presence of drug mixture in consumers of this study because of the risks and consequences that this practice has on individual and group health. We found that multiple substances are consumed simultaneously, just like other researchers found. In Madrid De la Fuente et al⁽¹⁷⁾ found frequent references to the mixture of heroin and cocaine—speed ball, tobacco, marijuana, alcohol and hypno-sedatives. Heroin users rarely consume only one substance. The common practice is consuming several drugs whether they are central nervous system depressants or not. The combined consumption of two or more depressant substances to sub-lethal doses can enhance its effect and produce death by overdose; this is the case of the concomitant heroin and alcohol or benzodiazepine consumption^{(43), (44), (38)}. Whereas the concomitant heroin and alcohol use seems unquestionable as cause of overdose, it is not so with consuming heroin and benzodiazepine without controversial results^{(38), (41)}.

In our work we found that the interviewees did not know the risk and consequences of such practices, many of them enhancers to the depressant effects of heroin (marihuana, benzodiazepine, alcohol and opiate derivative) that explains the references made by consumer's regarding their presence in intoxication and overdose signs and symptoms.

Finally and although we did not come across studies to compare our findings in relation to parallel activities and consumption, except for the references of accidents among consumers that supposedly drive while under the influence. A fact that was also corroborated in our study and makes control intervention on behalf of the authorities necessary, we also consider important to acknowledge other everyday actions that the participants in this study carry out when under the influence like listen to music, watch TV, work out, watch videos, draw, paint, talk, surf the web, listen to the radio, read, write, play musical instrument, play cards which shows a level of "normality" and "functionality" of these consumers, this aspect might come to be because of the little time they have been doing heroin, for the cognitive, emotional and

social deterioration the substance brings them to is undeniable.

Limitations and conclusions

This study represents a small sample of consumers in Medellín and its Metropolitan Area, it is therefore, necessary to take bigger samples in order to confirm these results. Data likewise cannot be extrapolated to other regions of Colombia because consumer and consumption characteristics tend to differ within the same country, as has been demonstrated by other research projects⁽³²⁾.

This research has demonstrated the hypothesis regarding the similarity between both heroin consumers and consumption in Medellín to those of other counties and puts forward the importance of knowing consumer patterns, customs, ritual, methods of administration and consumer characteristics like a valuable element to prevent possible consequences, reduce impact on public health and be ready for an epidemic that has already reduced other toxic maniac populations like the Spaniard, where basically all heroin IV users became infected with HIV and hepatitis^{(45), (46), (32)}.

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