ADULTERANTS AND SYNTHETIC DRUGS CHEMICAL DESCRIPTION OF
SYNTHETIC DRUGS TRADED IN BOGOTA, COLOMBIA
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DIRECCION NACIONAL DE ESTUPEFACIENTES

Adulterants and synthetic drugs
Chemical Description of
Synthetic Drugs Traded in
Bogotá-Colombia
The worst danger for the consumers of this type of drugs is considering that all synthetic drugs are equal.

In the countries inside Andean region it is totally unknown the composition of the synthetic drugs that are traded.

In consequence, the traffic of contaminated substances represents another danger, where chemical composition is an enigma for all the people involved in the production-traffic-consumption chain.

Background

- There were no technical-scientific studies that will allow to recognize contaminated substances inside synthetic drugs.

- Every sized synthetic drug is reported to the Colombian Drug Observatory (ODC) as Ecstasy

- Latest studies and investigations point that there is an increase in the Synthetic Drug (SD) consumption in young people.

- There have not been developed intervention processes based in the SD used in the country.
Main Objectives

• Design intervention strategies based in scientific evidence

• Make a chemical description of the synthetic drugs traded in Bogotá

Specific Objectives

1. Standardize a methodology for sampling (Statistics) and synthetic drugs chemical analysis (CG/EM)

2. Design an early intervention strategy based in the results

3. Design a Drug Demand Reduction program based in the results
• There was held an intelligence analysis during 2 months.

• 130 trade areas in the whole city.

• 104 sampling spots.

• 330 samples.

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Samples

266 Tablets

44 Capsules

11 Strips or patches

9 Liquids
Gas Chromatography/ Mass Spectrometry

- Extraction with solvents and in acid environment.
- Qualification and Quantification
- Active Principle (ingredient)
- Active and Inactive adulterating
- Vehicles (adjuvant)
- Occluded Solvents

From the obtained extracts from 330 samples, in 260 there were found different substances.
Caffeine was the substance found in major proportion (in 176 samples) equal to 53% of the total.

Only 17% of the samples showed MDMA content.

The following substances in order of appearance are Cocaine (Stimulant) and Levamisole (Dewormer) each one with 41 cases.
• 28% of 41 samples that contain cocaine possess more than 50% of this substance as active principle.

• In 44% of the samples, cocaine is present in percentages among 0 and 2% of the active principle.

• Important concentrations of cocaine as active principle, were found principally in Trips

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**MDMA CONCENTRATION**

• From 330 samples; 58 contain MDMA in a concentration of 25% in average.

• 7 Samples have higher concentration of MDMA 90%.

• 1 Sample has a concentration of 100% MDMA.

• 12 Samples have a concentration between 15% and 50%

• 35 Samples have a concentration between 0.1% and 15%

• 3 Samples have a concentration between 50% and 70%.
From 330 samples, in 31 there was found Methamphetamine concentrations.

31 samples are equivalent to 10.3 of the sample universe.

The highest concentration of Methamphetamine was 28.6

15.2 is the concentration average of Methamphetamine in 32 samples.
LSD

- In 5 of 330 samples, there were found concentrations of LSD
- 5 samples are equivalent to the 1,5 of the established universe in the sampling.
- The highest concentration of LSD was 17,2.
- 9,4 it is the average of LSD concentration in 5 samples.
• The scopolamine appears as active principle in 16 samples and has an approximate participation of 50% in all the cases.

• Majority of the samples that contains scopolamine are commercialized by the name of "Memphis" or "Little angels".
LSD was found in 45% of the total of trips (11) gathered.

The concentration of LSD as active principle (active ingredient) it does not overcome 17% of all the cases.
There were found interesting mixtures like:

- Methamphetamine 5.8%
- Phentermine 6.2%
- Caffeine 71.8%
- SILDENAFIL -Viagra 19.1%

Mixed:
- Stimulant
- Anorexigen
- Stimulant
- Vasodilator
<table>
<thead>
<tr>
<th>Substancia</th>
<th>Porcentaje</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Methoxy methanphetamine</td>
<td>87,1%</td>
</tr>
<tr>
<td>MDA</td>
<td>7,3%</td>
</tr>
<tr>
<td>N-Ethyl-4-methoxy-a-metilfenetilamina (PMEA)</td>
<td>2,4%</td>
</tr>
</tbody>
</table>

**Mixed:**  
Stimulant

<table>
<thead>
<tr>
<th>Substancia</th>
<th>Porcentaje</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Metoxi methamphetamine</td>
<td>0,3%</td>
</tr>
<tr>
<td>MDMA</td>
<td>0,4%</td>
</tr>
<tr>
<td>Caffeine</td>
<td>46,3%</td>
</tr>
<tr>
<td>Benadryl</td>
<td>0,6%</td>
</tr>
<tr>
<td>Levamisole (product of descomposition of ranitidine)</td>
<td>1,0%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>2,0%</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>39,1%</td>
</tr>
</tbody>
</table>

**Mixed:**  
Antihistamine  
Dewormer  
Anticonvulsive
Dirección Nacional de Estupefacientes
República de Colombia

Ketamine 48,1%
Caffeine 20,9%
Levamisole 37,7%

Mixed:
Anesthetic
Stimulant
Dewormer

Dirección Nacional de Estupefacientes
República de Colombia

Caffeine 1,4%
Methyl Scopolamine Bromide 5,7%
Scopolamine – H2O 3,4%
Scopolamine 67,5%
Scopolamine acetat 11,0%

Mixed:
Stimulant
Antispasmodic and tranquilizer
**Dirección Nacional de Estupefacientes**
República de Colombia

<table>
<thead>
<tr>
<th>Substancia</th>
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<tbody>
<tr>
<td>MDMA</td>
<td>8.3%</td>
</tr>
<tr>
<td>Caffeine</td>
<td>5.4%</td>
</tr>
<tr>
<td>Ketamine</td>
<td>35.9%</td>
</tr>
<tr>
<td>Xylazine</td>
<td>12.4%</td>
</tr>
<tr>
<td>Levamisole</td>
<td>15.3%</td>
</tr>
<tr>
<td>Acetaminophen</td>
<td>3.1%</td>
</tr>
<tr>
<td>Caffeine</td>
<td>44.1%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.2%</td>
</tr>
<tr>
<td>Chlorcyclizine</td>
<td>0.2%</td>
</tr>
<tr>
<td>Monoacetylmorphine</td>
<td>0.7%</td>
</tr>
<tr>
<td>Diacetylmorphine</td>
<td>1.6%</td>
</tr>
<tr>
<td>Hydroxyzine</td>
<td>47.7%</td>
</tr>
<tr>
<td>Johimbe</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

**Stimulant**
**Analgesic**
**Mixed:** Sedative, muscle relaxant and analgesic Dewormer

**Analgesic**

**Stimulant**

**Mixed:** Tranquilizer Anxiolytic
Thank you

Héctor Hernando Bernal Contreras

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