

Ethylone: a synthetic cathinone emerging in Barcelona

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Introduction

Synthetic cathinones, the active component in “bath salts”, have surfaced as a popular alternative to other illicit drugs of abuse, such as cocaine, MDMA (ecstasy), and methamphetamine, due to their potent psychostimulant and empathogenic effects.

Objectives

To describe the presence of Ethylone in samples delivered to Energy Control from 2014 to 2015 in Spain.

Methods

The total number of samples analyzed from 2014 to 2015 was 8,324. Only those samples containing Ethylone were studied. They were analyzed by Energy Control, a Spanish harm reduction NGO that offers the possibility of analyzing the substances that users report. Analysis was done by Gas Chromatography-Mass Spectrometry.

Results

From June 2014 to December 2015, 8,324 samples were delivered to EC. From this samples 28 (0.3%) contained Ethylone. Twelve (0,1%) were delivered as MDMA, representing a 0.8% of the samples delivered as such, and only one sample (0,01%) delivered as MDMA presented Ethylene as an adulterant along with MDMA. Other 6 samples (0.1%) were delivered as Ethylone and 10 samples (0.1%) were delivered as unknown pills.

Figure 1

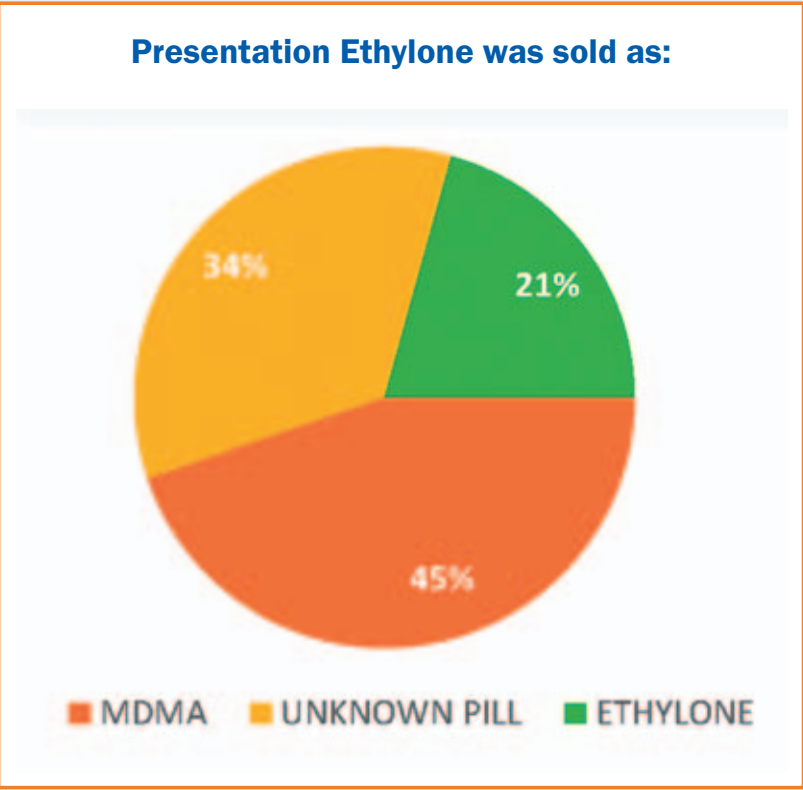
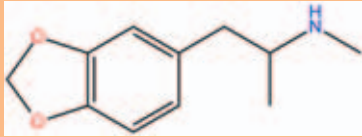
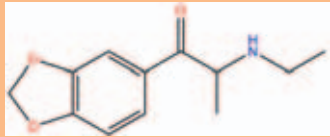


Table 1. Main characteristics of MDMA and Ethylone when using the oral administration route

	MDMA	ETHYLONE
Chemical nomenclature	3,4-methylenedioxy-N-methamphetamine	3,4-methylenedioxy-N-ethylcathinone
Molecular structure		
Common dosage	75-150 mg	150-225 mg
Total duration	3-5 hours	2-4 hours
Onset	20-60 minutes	15-45 minutes
Peak	90-150 minutes	60-90 minutes
Offset	60-120 minutes	60-120 minutes
After effects	12-48 hours	2-12 hours

Discussion

Ethylone consumption is found to be an emerging issue according to the results of our samples, an increase of such is found during 2015. This might be traduced as an increase of Ethylone in the drug market, but a sample selection bias should be considered as samples were voluntary delivered by consumers.

An alarming phenomenon is that in some occasions Ethylone is sold as MDMA, but Ethylone's effects are less powerful and a higher dose is needed in comparison with MDMA. This might lead to redosing, resulting in a very erratic and dangerous consumption pattern.

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