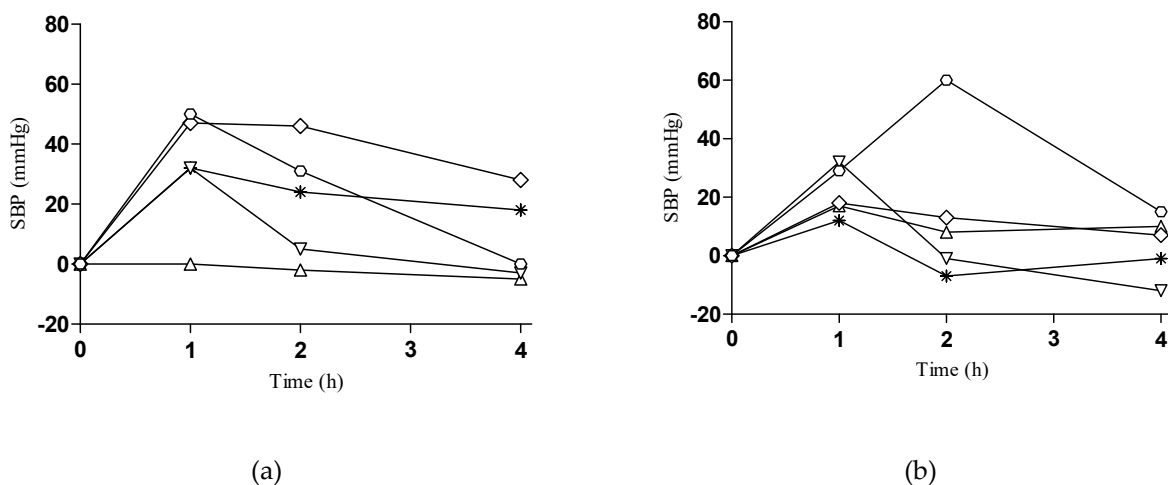
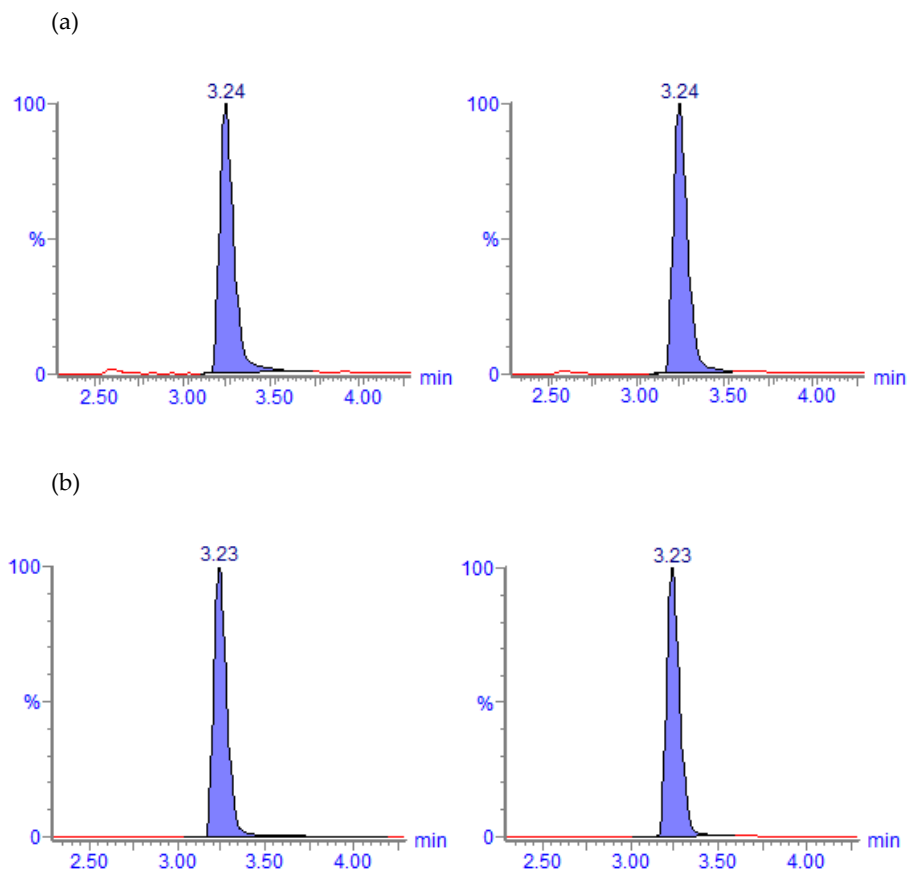




Supplementary materials



**Figure S1.** (a). Individual data of systolic blood pressure (SBP) after oral self-administration (n=5); (b) Individual data of systolic blood pressure (SBP) after intranasal self-administration (n=5).



**Figure S2.** (a) Mephedrone chromatogram of a participant that self-administrated orally 150 mg of mephedrone (right) and one subject that self-administrated 50 mg intranasal (left) from and oral fluid sample (b) Chromatograms of the internal standard used for the previous samples (Mephedrone-d3).

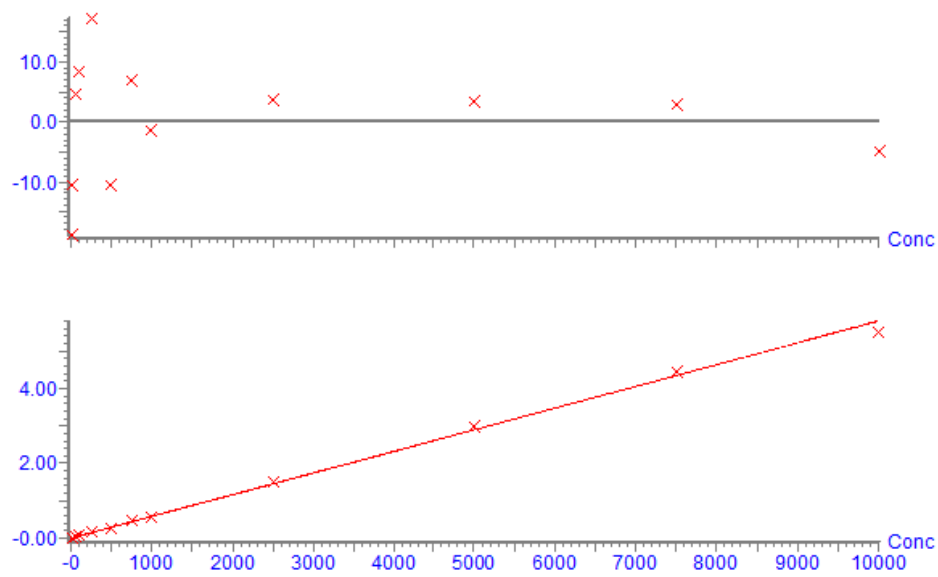


Figure S3. Linearity parameters of the oral fluid methodology.

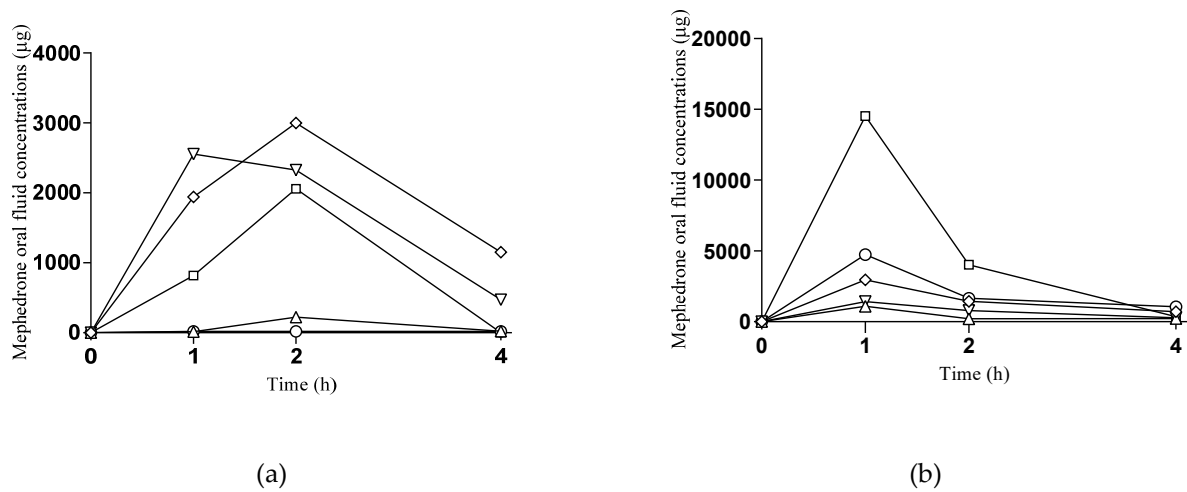


Figure S4. (a) Individual data of time-course of mephedrone oral fluid concentrations after oral self-administration of mephedrone (n=5); (b) Individual data of time-course of mephedrone oral fluid concentrations after intranasal self-administration of mephedrone (n=5).

**Table S1.** Summary of time course result on the physiological and subjective effects observed after self-administration of oral (n=5) and intranasal (n=5) mephedrone.

	Comparison to baseline	
	Dunnett's test	
	oral	intranasal
SBP	a, b	NS
DBP	a, b	a
HR	a, b	a
T	NS	a
Intensity	a, b	a
Stimulated	a, b	a
High	a, b	a
Good effects	a, b	a
Liking	a, b, c	a, b
Content	a, b, c	a
Changes in colors	NS	---
Changes in shapes	NS	--
Changes in lights	NS	--
Hallucinations-seeing of lights or spots	NS	--
Hallucinations-seeing animals, things, insects, or people	NS	--
Changes in hearing	NS	NS
Hallucinations-hearings of sounds or voices	NS	--
Different body feeling	a	a
Unreal body feeling	NS	NS
Changes in distances	NS	--
Different surroundings	NS	NS
Unreal surroundings	NS	--
Confusion	NS	NS
Fear	--	NS
Depression or sadness	NS	NS
Drowsiness	NS	NS
Dizziness	NS	NS
Bad effects	NS	NS
Headache	NS	NS
Nausea	--	--
Vertigo	NS	--
Breathing difficulty	--	--
Face flushing	NS	NS
ARCI-PCAG	NS	a, b
ARCI-MBG	a, b	a
ARCI-LSD	NS	NS
ARCI-BG	a, b	a, b
ARCI-A	a, b, c	a, b
VESSPA-S	NS	NS
VESSPA-ANX	a, b	a, b
VESSPA-CP	NS	--
VESSPA-SOC	a, b	a

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VESSPA-ACT	<b>a, b, c</b>	<b>a</b>
VESSPA-PS	<b>a</b>	NS

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For T-C a post-hoc Dunnett's test for multiple comparisons was used (see Statistical analysis). Statistical differences between are presented as "a"  $p < 0.05$ , "a"  $p < 0.01$  (times 0- 1 h), "b"  $p < 0.05$ , "b"  $p < 0.01$  (times 0- 2 h), "c"  $p < 0.05$ , "c"  $p < 0.01$  (times 0- 4 h).