

Understanding Pathways to Stimulant Use:

A mixed-methods examination of the individual, social and cultural factors shaping illicit stimulant use across Europe (ATTUNE)

Risk and protective factors associated with different types of ATS use careers: results from the European ATTUNE study

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Background and Aim

Background

- Amphetamine-type stimulants (ATS) ranked world's and Europe's second most used drugs after cannabinoids (UNODC)
- Little is known about the factors which are associated with the development of different ATS use patterns

Aim

- Increase of our understanding of pathways to ATS use and the development of different ATS use patterns
- Identification of **risk and protective factors** regarding problematic ATS use



Design and Methods

- Sequential, exploratory, cross-sectional, mixed-methods, stratified
- Two core Modules
 - **Module 1:** qualitative methods (semi-structured face-to-face interviews)
 - **Module 2:** quantitative methods (face-to-face CAPI-interviews with structured questionnaires)
- Both modules use “biographical research” based on the **biopsychosocial model** (individual, social dynamics, cultural/environment) to investigate on ATS pathways and careers
- Data collection in five European countries (GER, CZ, NL, UK, PL)



Analysis Groups: different types of ATS use careers

- Total Sample **N=1656**
- Participants were allocated to five different analysis groups (types of ATS career) depending on the **mean number of ATS consumption days per year of ATS career**
- We regard the analysis groups as the (current) endpoint of participant's **ATS career** (timespan from first use to current last use)

	Type of ATS career	Ø consumption days per year of ATS consumption career	Sample sizes N total=1656
1	never used	0	347 (21%)
2	rarely used	1-5	259 (16%)
3	moderately used	6-20	279 (17%)
4	frequently used	21-365	298 (18%)
5	SDS positive	SDS ≥ 4	473 (29%)



Sociodemographics

	never used N=347	rarely N=259	mode- rately N=279	fre- quently N=298	SDS positive N=473	total N=1656
Gender, % ***						
female	60.5	45.6	41.9	32.9	35.3	42.9
male	38.9	54.1	57.3	67.1	64.1	56.6
other/ preferred not to indicate	0.6	0.4	0.7	0.0	0.6	0.5
Age, mean (SD) ***	31.4 (10.4)	31.7 (8.8)	28.6 (7.9)	31.5 (9.6)	32.8 (9.3)	31.4 (9.4)
Currently in relationship, % ***	61.7	58.3	52.0	47.0	39.5	50.5
Having children, % ***	27.7	27.4	20.1	30.9	42.5	31.2
Current living situation, % ***						
stable	95.4	93.8	93.2	84.6	67.7	84.9
precarious	4.6	6.2	6.8	15.4	32.3	15.1
Educational status, % ***						
below upper secondary	4.9	10.0	7.9	24.2	35.5	18.4
upper secondary through short- cycle tertiary	48.7	38.6	47.7	55.4	50.1	48.6
bachelor through doctoral	46.4	51.4	44.4	20.5	14.4	33.0
Low income, % ***	25.6	23.6	40.1	36.9	51.2	37.1
Currently unemployed, % ***	15.9	17.8	20.4	39.6	60.9	34.1
Social integration index, mean (SD) ***	7.2 (2.0)	7.1 (2.1)	6.9 (2.2)	6.7 (2.4)	5.6 (2.5)	6.6 (2.4)
(Rather) satisfied with life in general, % ***	76.9	74.9	82.1	63.8	44.8	65.9



Logistic regression model for the prediction of allocation to ATS use career type: rare, moderate and frequent users in comparison with SDS-positive users

Model Fit: Chi ² =749.42; df=45; p< 0.001 R ² (Nagelkerke)=49.1;	rarely		moderately		frequently	
	OR	Sig.	OR	Sig.	OR	Sig.
SOCIODEMOGRAPHICS						
Age (years)	1.02	0.066	0.98	0.117	1.01	0.410
Educational level: high	1.76	0.014	1.57	0.037	0.79	0.289
Income: medium to high	1.88	0.005	0.91	0.627	1.40	0.048
Satisfaction with life: satisfied	0.99	0.982	2.24	0.001	1.03	0.863
Social integration index (1-10)	1.03	0.624	0.94	0.147	1.08	0.050
DRUG USE						
Age at first ATS use (years)	0.99	0.672	1.01	0.749	0.95	0.011
No ATS consumption motive “coping”	9.04	0.000	3.52	0.000	2.44	0.006
No ATS use on workdays during daytime	10.27	0.000	6.30	0.000	1.98	0.000
No experience of negative consequences of ATS use	6.79	0.000	2.67	0.055	1.50	0.464
No lifetime consumption of non-prescribed tranquilisers	1.76	0.014	1.07	0.740	0.72	0.056
No injecting drug use lifetime	2.50	0.040	1.89	0.084	0.65	0.056
No drug treatment lifetime	3.11	0.000	2.46	0.000	1.67	0.009
BURDEN						
Number of negative life events after onset of ATS use	0.90	0.124	0.89	0.039	0.86	0.001
HEALTH AND MIND						
General Self-Efficacy Scale (1-4)	0.74	0.150	0.97	0.887	1.75	0.001
No psychiatric diagnosis lifetime	1.91	0.003	1.69	0.009	1.69	0.003

Risk factors

Risk factors	Possible link to problematic ATS use
<ul style="list-style-type: none"> • Low educational level • Low income 	<p>ATS might be used to escape from rather difficult socioeconomic conditions of life for a moment. Users being confronted with such living conditions might have the feeling to have nothing to lose, i.e. uncontrolled ATS use cannot endanger occupational success or social prestige.</p>
<ul style="list-style-type: none"> • Biographical burden (stressful life events) • ATS use motive coping • Mental health problems 	<p>Users try to cope with the long term impact of stressful life events on their mental health condition by using ATS and perceive this self-medication as (short-term) effective.</p>
<ul style="list-style-type: none"> • Continuation of ATS use despite negative consequences 	<p>Some users ignore negative consequences of ATS use and consequently do not reduce their use. If a dependency is subsequently developed, consumption cannot be reduced easily despite negative consequences.</p>
<ul style="list-style-type: none"> • Use of methamphetamine • Injecting drug use 	<p>Methamphetamine use has a high potential of dependency because of its specific drug properties (short duration of effect, sudden onset, strong effect). Injecting drug use is the most risky route of administration in terms of dependency and harms to users' health.</p>

Protective factors

Protective factors	Possible link to controlled ATS use
<ul style="list-style-type: none">• Following consumption rules• No ATS use on workdays during daytime	<p>Following self-imposed consumption rules might help users to organize their ATS use in a way that it does not endanger important obligations in everyday life (job, studies, family life). A crucial rule seems to be the limitation of use on leisure time.</p>
<ul style="list-style-type: none">• Higher self-efficacy• Reduced sensation seeking	<p>A higher self-efficacy obviously supports the control of ATS use and helps to reach phases of abstinence every once in a while, just as reduced urge for sensation-seeking.</p>



Limitations

- Purposive sampling
- Years of abstinence may be included in one's career, but we believed this to be the best approximation to the average consumption frequency
- Cross-sectional design: It is not ruled out that some of the factors might have occurred when a problematic or dependent ATS consumption pattern was already established
- ATS related factors might hide the effects of factors of social integration



Conclusions

- ATS users are a highly heterogeneous group
- Many of the respondents have developed an ATS consumption career that can be considered as unproblematic overall: Among rare or moderate but also among many frequent ATS users, consumption behaviour did not impair everyday life
- The situation is quite different regarding ATS users, who have experienced significant physical and mental side effects as a result of the use of ATS and who have severely disregarded everyday obligations.
- ATS use which is embedded in the leisure and consumption cultures of integrated users remains mostly episodic. The investigated patterns of frequent and dependent ATS use show that intensive use does not have to be problematic but combined with various risk factors it increases the probability of developing dependent use patterns.
- Measures of secondary prevention should take into account the heterogeneity of ATS users' consumption patterns and be tailored to the risk factors involved.
- Further analyses will focus on factors of social integration and skip ATS related factors, for this might reveal the association of social integration with problematic/dependent and integrated/controlled ATS use, respectively.



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