

Popping smart pills: the use of prescription stimulant medication as a performance enhancer among Flemish medical students

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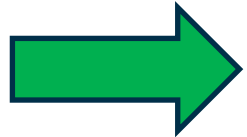
01/06/2017

Background

- Substance use among students
- Limited research concerning non-medical use of stimulant medication among students
 - Alarming studies US
 - Safe?
 - Unfair competition?



→ PhD 'subSTud-project'



1. Medical students (2016)
2. Entire student population (2017)

Research Questions

1. What is the **prevalence** of non-medical stimulant use and what are the **characteristics** of this use?
2. **How** do students **acquire** this prescription medication?
3. What are the **psychosocial motives** for non-medical use?

Questionnaire



- 5 Flemish universities
- Medical students (bachelor and master)
- May-June 2016
- Response rate 48.74%

Definitions

- *Stimulant medication*

- 1) **methylphenidate** (e.g. Ritalin®)
- 2) **modafinil** (e.g. Provigil®)
- 3) **(dextro)amphetamine** (bv. Adderall®)

- *Non-medical use*

- 1) Use of these medicines **without prescription** to enhance study performances
and/or
- 2) Use of these medicines **with prescription** to enhance study performances, but not as part of treatment (e.g. AD(H)D)

How many students?

- Ever used: 11.1% - Mean age of onset: 20.66
- Frequency of use per period

	Academic year	Exams	Internships	Study period before exams
Not	98.3	91.3	98.9	93.1
Less than or once a month	1.0	2.3	0.4	1.5
Less than once a week, more than once a month	0.1	0.9	0.1	0.7
Once a week	0.2	0.8	0.2	0.6
More than once a week, less than daily	0.3	2.0	0.3	1.8
Daily	0.1	2.6	0.1	2.3
Total use	1.7	8.7	1.1	6.9



Reasons for non-medical use

To improve concentration while studying	66.4% (172)
To increase alertness	50.6% (131)
To be able to study for a longer period	47.9% (124)
To be more productive	43.6% (113)



Positive effects

Concentration/focus	77.2% (200)
Staying awake/energy	57.1% (148)
Desire to study	35.9% (93)
Better results	21.6% (56)

Obtained the desired effect?

Never	6% (15)
Very rarely	7.2% (18)
Rarely	3.2% (8)
Sometimes	15.5% (39)
Occassionaly	15.9% (40)
Regularly	29.9% (75)
Often	22.3% (56)

Side effects

Headache	12% (31)
Stomach Ache	7.3% (19)
Palpitation	28.6% (74)
Irritable	20.1% (52)
Sad	10% (26)
Decreased appetite	30.9% (80)
Sleeping problems	25.5% (66)
Dizziness	3.1% (8)
Problems with friends	4.2% (11)
None of the above	43.2% (112)



Acquisition from...

Acquaintance/friend from school	23.2% (60)
Parents	18.5% (48)
Prescription from the GP	18.1% (47)
Brother/sister	17.4% (45)

Determinants/psychosocial motives

- Self-perceived AD(H)D symptoms (without diagnosis)
- Self-perceived knowledge about the drug
- Sensation-seeking
- Procrastination
- Fear of failure
- Stress
- Social norms

Conclusion and recommendations

- 1 in 9 Flemish medical students use stimulants non-medically
- Substantial but < than alarming rates in the US
- However, action is needed to avoid potential similar evolution
- Important role for universities in informing students
- Target specific groups of students
- Careful with the term 'misuse'



Questions?

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