ADHD medication: non-therapeutic use by young people in secure care

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"Non-therapeutic use" = taking without a prescription

Overview

- Background
- Source of data
- Preliminary results
- Implications & future issues

ADHD

Untreated… academic performance, family relations & self-esteem

Various types of treatment e.g behavioural & pharmaceutical

Pharmaceuticals

- stimulants - dexamphetamines & methylphenidate (Ritalin)
- non-stimulant medication (Strattera)
- contention

ADHD

Disparity in prescription rates:

- Internationally
- Nationally

1 - 2.4% of school aged Australians medicated

30% young people in secure care medicated (NSW Dept. of Juvenile Justice 2003)

ADHD & crime & substance use

Shared correlations between various factors:

- family dysfunction, paternal criminality
- abuse & neglect, school performance

ADHD

- co-morbidity with other behavioural disorders, e.g conduct disorders

ADHD & substance use

Evidence from 8 clinical trials that **therapeutic** use of stimulants:

- either has no effect on substance use, or
- reduces the risk of substance use.

What about **non-therapeutic** use?

Non-therapeutic use of ADHD stimulants

US study (Teter et al., 2006)

n= 4580 college students:

- 5.9% (*n*=269) non-therapeutic use previous 12 months
- motives: cognitive improvement; & recreation

Anecdotal report (Brisbane 2006): high school students hospitalized after taking between 3 - 7 times the daily recommended dose of stimulants

AIC study

- 2005 national study of youths in detention centres (*n*=371)
- 11-17 years old - mainly males (*n*=346)
    - self-reported substance use & criminal behaviour
    - substance use 4-16 times higher than age-counterparts in the general population

- New analysis concerns a question on dexamphetamine use *(licit or illicit)*

AIC data - preliminary results

Table 1: Prevalence of dexamphetamine use

	n	%
Ever used dexamphetamine	134	36
Group A: licit use only	*54*	15
Group B: illicit use only	*59*	16
Group C: both licit & illicit	*21*	6

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [Computer File].

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AIC data - preliminary results

- Unable to analyse Groups A, B & C separately

- "Dex-users" = ever used dexamphetamines (licit or illicit)
- "Non-users" = never used dexamphetamines

No differences: age; sex; age left school; or prior detention

AIC data - preliminary results

Table 2: Background indicators among dex-users and non-users

	dex-users		non-users	
	n	%	*n*	%
School problems				
Truancy (often)*	68	51	73	31
Expelled (ever)*	96	72	124	53
Home problems				
Parental substance use*	83	62	106	43
Physical abuse (ever)*	63	47	69	29
Personal issues				
Worried or stressed*	42	31	37	16
Apathetic*	32	24	33	14
Arguments or fights*	30	22	30	13
Feeling very sad*	22	16	16	7

*Statistically significant, chi-square, $p<0.05$

AIC data - preliminary results

Table 3: Lifetime prevalence of any substance[1] use among dex-users & non-users

	dex-users		non-users	
	n		*n*	
Average substance types used*	134	4.1	237	2.1
Average substance types used often*[2]	134	2.3	237	1.3

*Statistically significant, chi-square, $p<0.05$

[1] Includes alcohol, cannabis, amphetamines, inhalants, ecstasy, heroin, cocaine/crack, street methadone.

[2] Substances used at least once per week at any period.

AIC data - preliminary results

Table 4: Lifetime prevalence of offending among dex-users & non-users

	dex-users		non-users	
	n	%	*n*	%
Stealing*	123	92	180	76
Vehicle theft*	118	88	180	76
Break & enter*	122	91	197	83
Trade stolen goods*	116	87	163	70
Fraud*	49	37	49	21
Robbery*	85	63	120	51

*Statistically significant, chi-square, $p<0.05$

Conclusions

Limitations:

- *retrospective*
- *no control for conduct disorders*
- *self-reporting*

1. 22% (*n*=80) had used stimulants illicitly (not necessarily whilst in a detention centre).

- Underscores importance of procedures in secure care (including foster care) to prevent illicit use e.g monitoring consumption
- Could non-stimulant medications be an alternative for some high risk youths?

Conclusions

2. Dex-users reported: greater exposure to background risk factors; committed more crime & used more drugs more frequently.

Simple reflection of the shared correlations between ADHD, crime & substance use.

Future analyses:

- Comparison of Group A (licit only) vs Groups B (illicit only) & C (both licit & illicit)
- Did Group A have lower levels of substance use or criminal behaviour?

Conclusions

3. Little is known about non-therapeutic use.

- What size dosages are taken?
- What are the effects of large doses?
- What is the extent of illicit use in the general population?

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AIC DUCO data

- 59% Aboriginal or Torres Strait Islander
- Significant difference (chi square, $p<0.05$):
  - Dex-users: 46% Indigenous ($n=61$)
  - Non-dex-users: 66% Indigenous ($n=157$)