Emerging Issues in Youth Substance Use - Distinguishing Evidence and Hype

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Social Media

NEW IMPROVED!

The Hype

- Motivated by headlines and circulation
- Aim to incite controversy
- Over-sensationalize one incident
- Seldom report reduced drug use or improvements in health promotion
- Focus on the negative
- Risk of creating a market for the substance
Methylenedioxypyrovalerone (MDPV)

VS

MDPV is now included in the same category of drugs as heroin and cocaine. This means all activities involving the substance are illegal, except for research and scientific activities, which must be authorized by regulation. This action gives law enforcement the authority to investigate suspected illegal activities involving MDPV, which will help keep our communities safe from this new and emerging drug.

Moving Beyond the Hype

- Hype is driving our attention
  - Which may not reflect the prevalence of use in youth

- Neighbourhoods could have specific issues which may be reflected in data
  - Ground initiatives in evidence
“Many youth that I work with discuss drinking one each morning to get their day started similar to coffee.”

– Death by Caffeine website

**High Caffeine Beverages**

**High Caffeine Energy Drinks**

- Possible Ingredients
  - Caffeine
  - High sugar content
  - Guarana
  - Kola nut
  - Yerba mate

**Mixing Alcohol and Caffeine**

- College age youth who mix are at a higher risk of developing alcohol dependency later in life
  
  [JAm Med Assoc, 2013]

- 11% of 18-24 year olds drank alcohol and caffeine mixed beverages in past year
  – This rate is 4 times higher than in the general population
  
  [JADA, 2013]

- 21% of Canadian students grades 7-12 reported the use of energy drinks, mixed or pre-mixed with alcohol in the past year

  [Youth Smoking Survey, 2010-11]
Risks of Mixing Alcohol and Caffeine

- Deceased subjective awareness of intoxication
  - Does not change the effects of alcohol therefore drinker will not perceive themselves to be impaired

- Caffeine masking the symptoms of alcohol
  - Leading to longer and more active drinking sessions
    - Facilitates greater alcohol intake

Motivation to Drink Energy Drinks

(CCSA, 2010)
Policy Response

- Ontario Energy Drink Work Group was successful in resolution passed by an Association of Local Public Health Agencies (alPHa) in June 2012
- Proposed energy drink regulations with four key points
- Advocate for regulation at provincial and federal levels

Poll: Do you include messaging to youth about alcohol and high caffeine energy drinks in your work?

Back to the Stats....

- 42% of Canadians reported using cannabis in their lifetime
- 10.6% used in the past year [showing a significant decrease from 2004]
- The average age of initiation was 15 years old
- Past year use by Ontario students was 22%
- 6% of Ontario students reported using at least weekly during the past month – this fits the definition of chronic use for many researchers for studying health impacts.
- In comparison, less than 9% had smoked a cigarette.

(Canadian Alcohol and Drug Use Monitoring Survey 2009 and Drug Use Among Ontario Students 1977-2011 USO/06)
Cannabis and the Lungs

Research on Lung Function


Cannabis and Cancer
Cannabis and Mental Health

Marijuana Use ➔ Mental Health Problems

Depression
Anxiety
Psychosis
Schizophrenia


Cannabis and IQ

Pot users show drop in IQ from adolescence to adulthood

Cannabis and Driving

CBC News | Health

Smoking pot doubles car accident risk
Marijuana, alcohol impairment compared


Highlights

- What is the evidence for marijuana's impact on driving?
- How has policy responded to marijuana's effects on driving?
Commentary on Cannabis Evidence

- Evidence on cognitive functioning I feel is very strong
- A convergence of evidence on the cannabis-psychosis link.
- Evidence on cannabis and cancer is mixed and needs more research
- Youth need to better informed regarding the effects of cannabis on driving behaviour

(Amy Porath-Walker, CCSA, September 2012)

Youth and Media Influence – Is It a Concern?

The Hype

- Youth have access to and spend an inordinate amount of time with multiple media and electronic devices
- Such multi-media exposure has a negative impact on health, particularly increased alcohol use
- Social media in particular expose youth to risks

How Much Screen Time Is Too Much?

- Over 80% of children and adolescents exceed the Canadian Paediatric Society’s recommended limit of 2 hours a day in front of a screen (Mark et al., 2006)
- 24% spend about 30 hours a week on the computer (American Heart Association, 2008)
- 13-20 year olds make up 18% of Facebook users (median)
- Adolescents spend an average 21 hours per week watching television (National Bureau of Canada, 2011)
- About 36% of teens play video games daily (Entertainment Software Association of Canada, 2010)
- 54% of teenagers use cell phones daily (Project Teen Canada)
What are the Health Effects of Screen Time on Youth?

Effects on higher screen users:
- engage in physical activity
- have good family relationships
- more likely to report health complaints
- physical aggression
- smoking
- alcohol used

(Willis, 2003; Nunez-Smith et al., 2010; Sharp, Willis, & Sargent, 2010; Dennison, Swahn, Feldman-Harn, & Romano, 2011)

Alcohol Promotion in Mixed Media

- Advertising has often been associated with youth drinking initiation and increase in quantity consumed
  (Anderson, de Bruijn, Angus, Gordon, & Hastings, 2008; Smith & Fowcroft, 2008)

- Effects last after the exposure
  (Willis, Sargent, Gibbons, Gerrard, & Stoolmiller, 2005).

- As many as 40% of young characters in popular teenage movies drinking alcohol
  (Stern, 2010).

- Broadcasting of alcohol advertisements increases 7% to 22% for every percentage point increase in adolescents in the audience.
  (Chung et al., 2010)

Social Media and Alcohol

- Alcohol use in adolescence is an activity occurring in socializing contexts
  (Oostveen, Knibbe, & De Vries, 1996).

- Environmental factors affecting alcohol promotion-use relationship:
  - having friends who drink (Scull, et al., 2010),
  - poor school performance (Sharp, et al., 2010), and
  - permissive or unsupervising parents (Austin, et al., 2006).

- Exposure to reinforcing images of peer’s alcohol use on social media sites
  (The Australia Medical Association Report: Sept. 20)
Because of social media.....

Youtube and the cinnamon challenge

On the other hand.....

Social media represent a new opportunity for youth for self-expressing, learning, communication and peer networking (Livingston and Boyle, 2010)

Program and Policy Implications

- Consider “the interdependencies between opportunities and risks” of media exposure
- A balance between regulation of alcohol promotion in mixed media and programs to promote youth media literacy
- Build “safety considerations into the design and management of social networking” sites
- Promote youth and parental awareness e.g. www.bewebware.ca
- Apply a “Children’s Rights Framework” (Livingstone and Helsper, 2010)

Poll: How are you addressing social media in your youth initiatives?
Lack of maturation in adolescent brain development ➔

- Poor decision making
- Risk-taking
- Impulsivity
- Use of alcohol and other drugs
- Effects of marijuana and alcohol

For data on youth injuries see: Injuries in Canada: Insights from the Canadian Community Health Survey® released June 2013

The Adolescent Brain

- Scans reveal late changes in gray matter - the outer layer of the brain cortex
- Different parts of the cortex mature at different rates
- Parts to control impulse and planning are among the last to mature
- Synapses grow in adolescence – later paring down of brain synapses lead to more efficient responses
- Brain links to emotional response leads to greater impact of emotional reactions and rewards
Alcohol and the Teen Brain

What Happens?
Adolescents are thought to react to alcohol differently than adults [Spear 2013]
- Reward
- Intoxicating effects
- Sensitivity to motor and social impairment
- Sensitivity to hangovers

Youth Are Vulnerable...
- To the limitations of efficient decision making of a “brain in progress”
- To the effects of alcohol
- To the effects of marijuana
- To the marketing of alcohol and high caffeine beverages, particularly on unregulated social media sites
- To the barrage of social pressures via social media and screen time
- To the hype around new and not-so-new substances and risky challenges

Countering The Hype: Resilient Youth

Caring Adults
Positive Friends

Youth and Substance Use
- Motivation to use alcohol
- Increased response to alcohol toxicity and high energy drinks
- Social pressures and social media
- Vulnerability to Cannabis
- Strategies: acceptance, values, learning, independence, support
- Family Practices: Brain in Development
- Peer Mobility: peer acceptance
**Challenges**

- Stay on top of the issues
  - New substances are constantly appearing
  - Multiple sources of data
  - Each community is unique

- Messaging
  - Timely and responsive data may be missing
  - Information filtered by your own bias
  - Strive for complete message
  - Check messaging with target audiences

**Strategies to Keep Informed**

- Check sources
  - Who provided the information?
  - Was it funded?
  - Understand the perspectives of your sources

- Watch for trends

- Ask local community about appearance

- Work with knowledge exchange specialists such as CAMH and CCSA to provide knowledgeable filters and summaries

**Moving Forward with Policy and Regulations**

- Define issue
- Research facts/context
- Coordinate with other stakeholders
  - Identify existing/overlapping policy efforts
- Prioritize needs and draft policy
- Obtain support

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Coming Up

PAD is hosting an online discussion forum on youth and low-risk drinking guidelines:

Youth and Drinking: Is There Evidence To Support Low-Risk Guidelines For Youth?
October 22 – November 2

For details, visit www.HCLinkOntario.ca