The principles of environmental prevention

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Förebygg.nu
The Concept

Make behaviour safer by design
Determinants of behaviour

- Physical environment, social norms, milieu
- Comprehension, reasoning, information
- Reflective: learn & evaluate: Emotion, impulse, association

Figure 1 The COM-B system - a framework for understanding behaviour.

Michie et al. Implementation Science 2011, 6:42
http://www.implementationscience.com/content/6/1/42
Menti
TECHNICAL REPORT
Environmental substance use prevention interventions in Europe
1) It’s all about personal responsibility, right?

... or about education ...
Figure 1: How Food Marketing Influences Overeating

- **Eating environment**
  - Access, salience, and convenience
  - Size and shape of serving containers
  - Atmospherics

- **Product**
  - Quality (sensory and nutritional properties)
  - Quantity (size and shape of packages and portions)

- **Marketing communication**
  - Advertising & promotion
  - Branding, nutrition and health claims

- **Price**

**Actions of Food Marketers**

- **Consumption response**
  - Automatic
  - Deliberate

**Research trend**
And: 10% of people use roughly 66% of the cannabis in Canada.
2 - Human Self-illusion
Homo rationalis: the main fallacy of prevention

Warn ➔ protective behaviours

Educate ➔ handling of risk

Appeal ➔ moderation

➔ Focus on the individual:

➔ … who is free of impulses, desires and emotions, in control, objective and independent
We act intuitively,... and “rationalise” afterwards

The Spirit Is Willing, But the Flesh is Weak: Why Young People Drink More Than Intended on Weekend Nights—An Event-Level Study

Florian Labhart, Kristen G. Anderson, and Emmanuel Kuntsche

**Background:** Heavy alcohol use is common among young adults on weekend nights and is assumed to be intentional. However, little is known about the extent to which heavy consumption is planned prior to the onset of drinking and what factors contribute to drinking more than intended. This study investigates drinking intentions at the beginning of an evening and individual and situational factors associated with a subsequent consumption over the course of multiple nights.

**Methods:** Using a smartphone application, 176 young people aged 16 to 25 (mean age = 19.1; 49% women) completed questionnaires on drinking intentions, consumption, and drinking environments before, during, and after multiple Friday and Saturday nights (n = 757). Multilevel regressions were used to investigate individual-level and night-level factors associated with previous drinking intentions and subsequent deviations from intentions.

**Results:** Participants intended to consume 2.5 drinks (SD = 2.8) per night yet consumed 3.8 drinks (SD = 3.9) on average. Drinking intentions were higher among those who frequently went out at night and engaged in more frequent predrinking. Participants drank more than intended on 361 nights (47.7%). For both genders, the number of drinks consumed before 8 PM, attending multiple locations, and being with larger groups of friends contributed to higher consumption than intended at the individual and the night levels. Heavier consumption than intended also occurred when drinking away from home for men and when going to nightclubs for women.

**Conclusions:** Making young adults aware of the tendency to drink more than intended, particularly when drinking begins early in the evening, moves from location to location, and includes large groups of friends, may be a fruitful prevention target. Structural measures, including responsible beverage service, may also help in preventing excessive drinking at multiple locations.
Information-based approaches in schools, 2013

Substance users are far better informed than non-users in Switzerland (Dermota 2013), Israel (Brook et al. 2001), Australia (Lenton et al. 1997).
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→
Unconscious environmental cues

Descriptive Norms – “everybody” does XY
Injunctive Norms – XY is OK and acceptable
Implicit Cognition – automatic processing of cues

‘young men think about four things, we brew one and sponsor two of them’
Predictors of drinking alcohol to drunkenness

IN THE LAST 30 DAYS, adjusted for sex and country

Descriptive norms .... Again
Are we conscious about what drives us? …
Why do we engage in known harmful behaviours?

- Not due to reflection on Pro – Contra
- We act intuitively, ... and “rationalise” afterwards
- Automatic approach bias to cues
- (Deficits in impulse control)
- Attentional bias ➔ Craving
- Sensorial cues ➔ consumption: “working for food you don’t desire”
We know what will make us happy, why do we watch TV instead?
Abstract

**Background:** Electronic dance music (EDM) parties at nightclubs and festivals are high-risk scenes for drug use. Although intention to use drugs (such as ecstasy) has been shown to be the most proximal determinant of use, little is known regarding the extent to which drug use is unplanned in this high-risk scene.

**Methods:** We surveyed 954 adults entering EDM parties in New York City in 2017 and asked about planned drug use that night. A quarter ($n = 226$) completed the optional online follow-up survey which asked about drug use during their outing. We examined prevalence and correlates of planned and unplanned use. **Results:** A fifth (21.0%) of attendees reported planning to use a specific drug the night of the party and over a third (35.4%) reported using a drug later that night. A quarter (26.6%) used in an unplanned manner. Unplanned marijuana use was most common (10.7%), followed by unplanned use of ecstasy (7.3%), cocaine (4.7%), amphetamine (1.4%), LSD (1.3%), and MDA (1.1%). Unplanned initiation of use was associated with higher rates of drug use during the night.
Hot control versus cold control

Self Control
Is knowing you CAN ... BUT deciding you Won't
So?

Information and knowledge might be useful only … for the privileged (girls) … when we are alone. What counts is perceived “normality” → danger of warning campaigns → importance of social norms.
→ Menti
We need an intervention type that takes into account our ...

- Automatic decision making
- Lack of self-control
- Lack of introspection
The theory behind

Environmental Prevention
- Environmental Regulatory Measures
- Environmental Economic Measures
- Environmental Physical Measures

Risk Behaviours and Wellbeing
- Alcohol, Tobacco, other Drugs
- Poor Diet
- Low Physical Activity
- Violence / Crime
- Mental Health
Daily Marijuana Use vs. Perceived Risk of Regular Marijuana Use among 12th Graders, 1975-2013

“Attitude follows behaviour”

The stories we used to hear ....

“Drinking as “Rite of passage”: a developmental task”

- drinking has lost its unquestioned symbolic power
- less pressure to drink and more room for competing activities
- From homogeneous drinking culture to the acceptance of differences.
- early maturation: more individualised, responsible, reflective, and adult-like actors than in earlier generations?

[Törrönnen et al 2018]
How to apply this

To impulse-driven behaviours in general
Crime Prevention Through Environmental Design

Medellín: yes
Rio de Janeiro: no
Open space: conviviality, social control
Incentives and opportunities
European definition of environmental prevention

✓ interventions to limit exposure to unhealthy and risky behavioural opportunities and promote the availability of healthier opportunities.

✓ particularly important in those environments that contain triggers for risky behaviour.

✓ modifying the context where the behaviour takes place, such as alcohol retailers, public spaces or entertainment venues

✓ target familiar habits and behaviour

✓ do not have to rely on deliberate and conscious (healthier) choices.

✓ make the healthy choice the easiest option
Go beyond individuals‘ decision making

➔ Reduce visibility, accessibility and perception of normality & acceptance

target the automatic system of behaviour (one that does not require deliberate cognition).

require lower individual ‘agency’: less need to deploy resources such as conscious decision-making, motivation and impulse control
Universal elements – at macro level

Regulate availability
Regulate taxes and prices
Limit publicity and promotion
Limit access for the under-aged
Limit opportunities for consumption; new habits:
✓ Tobacco: "outside only"
✓ Alcohol: “inside only”
✓ Cannabis: “only at home or in consumption rooms”

Measures against driving under the influence
• Control of production, sale and distribution (max. 40);
• Age limits and controls (max. 24);
• Controls of drunk driving (max. 24);
• Control of alcohol advertising, marketing and sponsoring (max. 24);
• Public policies (max. 8)
• Taxation and pricing (max. 40).

Alcohol control score 2008–2014

Key:

- 0
- 20
- 40
- 60
- 80
- 100
- 120
- 140
- 160
- No information
Examples

** Regulatory:** Age restrictions, licensing hours, standardised plain packaging of tobacco products and the banning of alcohol sponsorship in sports.

establishments to provide free drinking water as a condition for entertainment or alcohol retail licence.

**Physical**

micro-environment: special design of bars and nightclubs, beverage glasses: tall and thin with a lower total volume

macro-environment, such as city planning and landscape design, e.g. provision of free transport at night-time

**Economic:** taxes on tobacco products, minimum alcohol unit price, lowering the price of non-alcoholic drinks, free water in recreational venues
Local environmental strategies

England & Wales: interagency cooperation is mandatory

*Citysafe* (Liverpool): police, pubs, staff training, no street drinking, campaigns

*Tackling Alcohol-related Street Crime* (TASC) in Cardiff: significant drop in cases

Scotland: staff serving training mandatory for license

England: decline in violent crimes, sexual crimes, public order offences, hospital admissions (De Vocht 2016)

Netherlands: idem → "frame a health problem as a broader societal problem" (de Goeij et al 2017)
Islandia sabe cómo acabar con las drogas entre adolescentes, pero el resto del mundo no escucha

Oct. 7th, 2017

Falta poco para las tres de una soleada tarde de viernes, y el parque Laugardalur, cerca del centro de Reikiavik, se encuentra prácticamente desierto. Pasa algún que otro adulto empujando un carrito de bebé, pero si los jardines están rodeados de bloques de pisos y casas unifamiliares, y los críos ya han salido del colegio, ¿dónde están los niños?

En mi paseo me acompañan Gudberg Jónsson, un psicólogo islandés, y Harvey Milkman, catedrático de Psicología estadounidense que da clases en la Universidad de Reikiavik durante una parte del curso. Hace 20 años, cuenta Gudberg, los
What is special?

Committed alcohol policy
Parental monitoring (+ family dinners)
Committed education and youth policy (keep them in school and in sports clubs): supervised leisure time
Strong social norms
No investment in persuasion, awareness, warning campaigns, etc.
**Beneficial:**
- Interventions for which convincing, consistent, and sustained effects for relevant outcomes are in favour of the intervention as found in two or more studies of excellent quality in Europe.

**Likely to be beneficial:**
- Interventions for which convincing and consistent effects for relevant outcomes are in favour of the intervention as found in at least one evaluation study of excellent quality in Europe.

**Possibly beneficial:**
- Interventions for which some effects for relevant outcomes are in favour of the intervention as found in at least one evaluation study of acceptable quality in Europe. An intervention ranked as ‘possibly beneficial’ is suitable for application in the context of more rigorous evaluations.

**Additional studies recommended**
- Interventions for which concerns about evaluation quality or consistency of outcomes in Europe make it difficult to assess if they are effective or not, even if outcomes seem to be in favour of the intervention.

**Icelandic Model**
- Interventions for which at least one evaluation of excellent quality in Europe show convincing evidence of no or harmful effects on relevant outcomes.
3

Limitations and criticism

It’s just about narratives
Facts don’t speak for themselves. Framing, metaphors and narratives need to be used responsibly.
“Why can’t you let people have fun?”

Because alcohol is omnipresent, it causes more harm than illegal drugs do.

Drug harm score, out of 100

Britain, selected drugs, 2010

Dependence and damage to mental and physical health
Loss of belongings and relationships
Productivity loss and extra demand for public services
Crime and injury
Family breakdown

Alcohol
Heroin
Tobacco
Cannabis
Ecstasy

Harm to users
Harm to others

Death

0 10 20 30 40 50 60 70
“You tell people what to do, and deprive them of pleasure”

Do we have a problem with intervening here?
No harm to others…
It’s not puritan – it’s epicurean!

- It’s not about “taking away the beer” from the Bavarians, but:
- Foster hedonism and mindful consumption
- See alcohol and similar drugs as treats, not as commodities
- Strengthen a local sustainable production culture of high quality products
Cross-border purchases: overemphasised

**US/ Mx** (Mills 2014)
Border youth attend bars and drink more *despite* having comparable alcohol-related beliefs, attitudes, norms, and motives for use.
heightened availability and visibility on both sides of the border may create opportunities for border youth to drink that otherwise would not be considered.

**DK→DE** (Bygvrå 2017)
“Those living within 25 km from the border exhibit behaviour significantly different from travellers from larger distances”

**FI-EE-LV**
10% of Estonians travel to Latvia with a sole purpose of buying alcohol. almost 40% have bought alcohol there
Alcohol-related harms in Finland comes mainly from alcohol bought from Finland
Tobacco

1 290 km: Paraguay
15 719 km: at land
7 367 km: at sea
And: 10% of people use roughly 66% of the cannabis in Canada.
The Bell-Curve Shift in Populations

Shifting the whole population into a lower risk category benefits more individuals than shifting high risk individuals into a lower risk category.

Population approach:
encourage everyone to change, shifting the entire distribution

Risk reduction approach:
Move high risk individuals into normal range

The philosophy teacher’s position

Free decision making
Manipulation – authoritarianism
Education is everything
Designing drunkenness: How pubs, bars and nightclubs increase alcohol sales

Sébastien Tutenges*, Frederik Bøhling

Lund University, Department of Sociology, Paradisgatan 5, Box 114, 221 00, Lund, Sweden

Using ethnographic data, this paper investigates the techniques used inside pubs, bars and nightclubs to design drunkenness, and sustain alcohol consumption among patrons. Focus is on venues with the majority of patrons belonging to the age group of approximately 15–35 years. The paper identifies a number of techniques that target this age group, including: alcohol advertising; special offers (e.g. ‘Happy Hours’ and ‘all you can drink’ specials); speed drinking devices (e.g. ‘bongs’ and large pitchers); and architectural features that hamper moderate drinking. The study shows that these techniques are used to facilitate the purchase and intake of alcohol. These techniques were used most extensively in low-price venues, catering to the youngest patrons (e.g. themed chain pubs) and less so in more expensive venues with more upscale patrons (e.g. craft beer bars). The paper argues that youth-oriented drinking venues may be conceived of as places of consumption where individuals are seduced and compelled into purchasing alcohol. And
Use of substances in last 30 days among >76,000 adolescents, by country group

<table>
<thead>
<tr>
<th>Substance</th>
<th>Prevalence full range %</th>
<th>Low prev.</th>
<th>Medium prev.</th>
<th>High prev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>20 - 81</td>
<td>50.8</td>
<td>65.3</td>
<td>73.1</td>
</tr>
<tr>
<td>Binge alc.</td>
<td>15 - 60</td>
<td>34.6</td>
<td>38.4</td>
<td>51.8</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>18 - 46</td>
<td>26.7</td>
<td>40.5</td>
<td>36.3</td>
</tr>
<tr>
<td>Cannabis</td>
<td>0 - 20</td>
<td>2.2</td>
<td>7.6</td>
<td>15.0</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>0 - 3</td>
<td>0.5</td>
<td>0.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Hallucinogenic mushrooms</td>
<td>0 - 2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td>LSD or other hallucinogens</td>
<td>0 - 1</td>
<td>0.3</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>0 - 1</td>
<td>0.4</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0 - 1</td>
<td>0.4</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Heroin</td>
<td>0 - 1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
</tr>
</tbody>
</table>
Use of selected illicit drugs during the last month among cannabis users and among all 15- to 16-year-old school students in the clusters of low-, medium- and high-prevalence countries.
Strategies to address prevention functions

- Reflected Motivation
  - Inform
    - Persuasion
  - Capability
    - Capacitate
      - Training
    - Environment restructuring
    - Incentivation
  - Opportunity
    - Nudge
      - Normative Control and Restriction
- Evidence-based programmes, mostly manualised
- Local environmental strategies
"Culture" is a construct, not a given reality. It is created by habits and interests (e.g. "cannabis culture")
Promoting individual decisions (and responsibility) is a fallacy (... and indecent).
If environments do not support our motivation, opportunities and incentives, our behaviour hardly changes
This was the first part

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