SHISHA (WATERPIPE) SMOKING

A growing fad among young people across Europe

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BACKGROUND

- Medical doctor in the West Midlands (UK)
- Honorary Clinical Research Fellow, Imperial College School of Public Health (UK)

Publications


STRUCTURE

- **What exactly is shisha?**
  - Mechanism of action, different types, ingredients

- **How popular is shisha in Europe, and why?**
  - Comparison of different countries, public attitudes

- **How harmful is shisha?**
  - Comparison to cigarettes, recent evidence
WHAT EXACTLY IS SHISHA?
1. **Coal**: Heated and placed on a pierced aluminium foil

2. **Head**: This is where the tobacco goes

3. **Hose**: This is where you inhale the cooled smoke

4. **Body**: The smoke travels down here

5. **Water bowl**: The smoke is cooled down here (not filtered!)
DIFFERENT TYPES OF SHISHA
INGREDIENTS...

Nicotine: 0.05%, Tar: 0%.
HOW POPULAR IS SHISHA IN EUROPE?

And why?
## Prevalence in Estonia

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>11 years</th>
<th>13 years</th>
<th>15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>0.4</td>
<td>1.4</td>
<td>1.9</td>
</tr>
<tr>
<td>≥1 week</td>
<td>1.3</td>
<td>4.4</td>
<td>7.6</td>
</tr>
<tr>
<td>&lt;1 week</td>
<td>8.3</td>
<td>19.3</td>
<td>28.8</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>0.1</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>≥1 week</td>
<td>0.7</td>
<td>2.4</td>
<td>3.2</td>
</tr>
<tr>
<td>&lt;1 week</td>
<td>2.1</td>
<td>10.6</td>
<td>27.8</td>
</tr>
</tbody>
</table>

### Prevalence in Denmark

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>14-16 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>7.0</td>
</tr>
<tr>
<td>Occasional</td>
<td>39.0</td>
</tr>
<tr>
<td>Tried once</td>
<td>14.0</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>2.0</td>
</tr>
<tr>
<td>Occasional</td>
<td>24.0</td>
</tr>
<tr>
<td>Tried once</td>
<td>15.0</td>
</tr>
</tbody>
</table>

PREVALENCE IN POLAND

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>Mean 16.5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes</td>
<td>34.6</td>
</tr>
<tr>
<td>Shisha</td>
<td>46.7</td>
</tr>
</tbody>
</table>

“Most of the surveyed students used waterpipe as an alternative tool to smoke tobacco.”

Epidemiology of shisha is poorly understood

- Mainly experimenters?
- Enough information to be declared as a problem?
- What is the link between shisha and cigarettes?

Shisha appears most prevalent among university students

- Most studied population group
- Experimentation age

Shisha only took off in the late 90s

- Creation of ‘flavoured’ shisha tobacco
- Immigration, globalisation
- Explains low level of use among adults
ATTITUDES
ATTITUDES

- Cool
- Fashionable
- Cultural expression
- Embrace other cultures
- Not taboo
- Smell & taste
- Less additive
- Filtered
- Less toxic
- No campaigns
- Alternative pub culture

Social acceptance
ATTITUDES
ATTITUDES
HOW HARMFUL IS SHISHA?
<table>
<thead>
<tr>
<th></th>
<th>Smoking time (mins)</th>
<th>Number of puffs</th>
<th>Puff duration (secs)</th>
<th>Total volume of smoke (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shisha</td>
<td>61</td>
<td>171</td>
<td>2.6</td>
<td>91</td>
</tr>
<tr>
<td>Comparison to cigarettes</td>
<td>12:1</td>
<td>16:1</td>
<td>2:1</td>
<td>166:1</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>“Tar” (mg)</th>
<th>Carbon monoxide (mg)</th>
<th>Nicotine (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shisha</td>
<td>464</td>
<td>155</td>
<td>1.04</td>
</tr>
<tr>
<td>Comparison to cigarettes</td>
<td>50:1</td>
<td>13:1</td>
<td>1.4:1</td>
</tr>
</tbody>
</table>
SHISHA’S HEALTH EFFECTS

Cigarette-like health effects
- Lung cancer
- Respiratory illness
- Low birth weight
- Periodontal disease
- Poor lung function

Shisha-specific health effects
- CO poisoning
- Cocktailing
- Infection
- Transmission
CAN SHISHA ADDICTION OCCUR?
ADDITION

- Physical dependence
- Unsuccessful quit attempts
- Smokers endorse addictive statements
- Withdrawal symptoms

Daily smoking equivalent to 10 cigarettes’ worth of nicotine

- Specific addiction measures
RECAP

- **What exactly is shisha?**
  - Mechanism of action, different types, ingredients

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