Presenter Disclosure

Sylvia Roozen

I have no current or past relationship with commercial entities.
Positive effects

Negative effects

![Image of drinks representing positive and negative effects]
## Why should we care?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prevalence per 1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAS</td>
<td>2.89</td>
</tr>
<tr>
<td>pFAS</td>
<td>11.22</td>
</tr>
<tr>
<td>FASD</td>
<td>22.22</td>
</tr>
<tr>
<td>ARND</td>
<td>5.19</td>
</tr>
<tr>
<td>ARBD</td>
<td>3.52</td>
</tr>
<tr>
<td>Down Syndrome</td>
<td>1</td>
</tr>
</tbody>
</table>

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Lessons of history we’ve failed to learn
FASD Prevention

“The act of stopping something from happening”

Primary
Occurrence

Secondary
Early detection, minimizing outcomes

Tertiary
Retain QoL, disease control
What has been done so far?
Comorbidity of fetal alcohol spectrum disorder: a systematic review and meta-analysis

Svetlana Popova, Shannon Lange, Kevin Shield, Alanna Mihic, Albert E Chudley, Raja A S Mukherjee, Dennis Bekhradzadeh, Jürgen Rehm

Summary
Background Fetal alcohol spectrum disorder (FASD) is related to many comorbidities because of the permanent effects of prenatal alcohol exposure on the fetus. We aimed to identify the comorbid conditions that co-occur in individuals with FASD and estimate the pooled prevalence of comorbid conditions occurring in individuals with fetal alcohol syndrome (FAS).

Methods We did a systematic literature search of studies reporting on the comorbidity and cause of death in individuals with FASD using multiple electronic bibliographic databases, searching for studies published up to July, 2012. We included original research published in a peer-reviewed journal in the English language. We used the following criteria for determining study quality: use of an established FASD diagnostic guideline, study setting, method of data collection, and sample size. All comorbid disease conditions were coded according to the International Classification of Diseases, tenth revision (ICD-10). To estimate the pooled prevalence of comorbid conditions found to co-occur in individuals with FAS, we did meta-analyses assuming a random-effects model.

Findings Of 5063 studies found, 172 met eligibility criteria for data extraction. From those studies, we identified 428 comorbid conditions co-occurring in individuals with FASD, spanning across 18 of 22 chapters of the ICD-10. The most prevalent disease conditions were within the sections of congenital malformations, deformities, and chromosomal abnormalities, and mental and behavioural disorders. 33 studies reported data for frequency in a total of 1728 participants with FAS. The five comorbid conditions with the highest pooled prevalence (between 50% and 91%) included abnormal results of function studies of peripheral nervous system and special senses, conduct disorder, receptive language disorder, chronic serious otitis media, and expressive language disorder.

Interpretation The high prevalence of comorbid conditions in individuals with FASD highlights the importance of assessing prenatal alcohol exposure as a substantial clinical risk factor for comorbidity. The harmful effects of alcohol on a developing fetus represent many cases of preventable disability, and thus, alcohol use during pregnancy should be recognised as a public health problem globally.

Funding Public Health Agency of Canada.
Figure 2: Prevalence of disease conditions belonging to ICD-10 chapters II, III, IV, V, and VI found to occur in individuals with fetal alcohol syndrome

Figure 3: Prevalence of disease conditions belonging to ICD-10 chapters VII, VIII, IX, X, XI, XII, XIII, XIV, and XVI found to occur in individuals with fetal alcohol syndrome
Management and care
Problem identification → Problem Solving

Health Promoting Goal

Health Promoting Program

Who to Influence?

- **Society**: Governmental agencies, Policies
- **Community**: Community leaders
- **Organization**: Hospital, Healthcare providers
- **Interpersonal**: Partner, Family, Friends
- **Individual**: Pregnant women, Women in childbearing age, Women with alcohol abuse, Etc.
Example Approaches

- Large-scale campaigns, alcohol policy, network linkages, research
- Community-based interventions, mobilizing advocacy
- Holistic services for e.g., high risk pregnant women
- Support Services for e.g., family
- Screening, brief interventions (motivational interviewing)
<table>
<thead>
<tr>
<th>Undesired behavior(s)</th>
<th>What to Change?</th>
<th>Desired behavior(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant with wine</td>
<td></td>
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</tbody>
</table>
New Years Resolutions for 2017-2018-2019

1. Exercise more again
2. No alcohol
3. Be kinder to others & yourself
   Try to
4. Read more 1 book anything
5. No more sugar, sweets
Beliefs

“Some family members or friends also drank alcohol throughout pregnancy and had very normal, even beautiful kids”

“If I do not drink alcohol in pregnancy I feel more stressed”

“My family said that drinking alcohol would help me during pregnancy”

“If I have already eaten well and I drink a little glass of red wine, I do not feel that I put my baby at risk”

Determinants

- Descriptive norm
- Injunctive norm
- Risk perception
- Attitude / Self Efficacy

Scene One
A woman is walking along the beach with her friend. The woman says with a smile, “Can you keep a secret?”
The friend replies, “Of course I can! Why?”
The woman says, “You have to promise you won’t tell anyone, yet…”
The friend stops walking, nods, and looks at the woman with excitement.
The woman says “I’m pregnant!”
They scream and laugh and the friend gives the woman a big hug.

Scene Two
It is a ‘girls’ night out’ party scene and the same woman and her friend are arriving together. The woman gets offered a glass of wine by the host, and the woman says “No thanks, just an OJ for me.”
The host says, “What? That’s not like you!”
The friend is standing next to the woman and says “Oh, we’re both on a health-kick, I’ll have a water.”
The host says “Good on you!”
The woman and her friend smile at each other while the host turns away to get them the drinks.

A final message is displayed on the screen and a voice says:
No alcohol during pregnancy is the safest choice.

A taxonomy of behaviour change methods: an Intervention Mapping approach

Gerjo Kol, Nell H. Gottlieb, Gjalt-Jorn Y. Peters, Patricia Dolan Mullen, Guy S. Parcel, Robert A.C. Ruiter, María E. Fernández, Christine Markham and L. Kay Bartholomew

School of Psychology & Neuroscience, Maastricht University, Maastricht, MD, The Netherlands; School of Public Health, University of Texas, Houston, TX, USA; School of Psychology, Open University, Heerlen, DL, The Netherlands

ABSTRACT
In this paper, we introduce the Intervention Mapping (IM) taxonomy of behaviour change methods and its potential to be developed into a coding taxonomy. That is, although IM and its taxonomy of behaviour change methods are not in fact new, because IM was originally developed as a tool for intervention development, this potential was not immediately apparent. Second, in explaining the IM taxonomy and defining the relevant constructs, we call attention to the existence of parameters for effectiveness of methods, and explicate the related distinction between theory-based methods and practical applications and the probability that poor translation of methods may lead to erroneous conclusions as to...
Applying Methods
Effectiveness?

The Need for a Framework
Step 1: Problem analysis
Needs assessment

Step 2: Program Objectives
Determinant analysis

Step 3: Program Design
Methods & Applications

Step 4: Program Production
Intervention

Step 5: Implementation Plan

Step 6: Evaluation Plan
Now what?

- FASD is an important health problem in need of prevention.
- FASD warrants simultaneous prevention on multiple levels and requires a multidisciplinary approach.
- For FASD prevention there is room for improvement.
- Decisions about prioritizing short-term and long-term actions are important.
“Each one of us can make a difference. Together we make change”
8th International Conference on Fetal Alcohol Spectrum Disorder

Research, Results and Relevance

Integrating Research, Policy and Promising Practice Around the World

March 6–9, 2040?

The Westin Bayshore
Vancouver, BC, Canada
Given the complexity of FASD prevention, what two areas would you consider to be prevention research priorities over the next 20 years? Why?