The overall effect of parental supply of alcohol across adolescence on alcohol-related harms in early adulthood

Background

• Alcohol is a leading cause of harm among young people
• One of the main suppliers of alcohol to adolescents are their parents
  • This is sometimes based on the idea that getting the child ‘used to drinking’ will decrease risky drinking later
• Recent research suggests parental supply of alcohol is associated with higher odds of risky drinking and alcohol-related harm among adolescents
Background

• The overall effect of parental supply in adolescence remains unclear
  • Supply is complex and varies over time
  • This can introduce bias in standard analyses
• This study examined the effect of parental supply of alcohol on alcohol-related outcomes in early adulthood using robust methods to minimise risk of bias.
Methods

- Data was from a longitudinal cohort of Adolescents
  - N=1906
  - Recruited from Australian school at mean age 12.9yrs
  - Followed for 9 years (7 years included in this analysis)
- Examines the overall effect of parental supply in the first five waves of the study (up to mean age 16.8yrs)
- Analysis uses targeted maximum likelihood estimation
  - Consistent, unbiased estimator of causal effects in observational data, under some structural assumptions
Results

Wave 1: 16.1%
Wave 2: 26.2%
Wave 3: 28.2%
Wave 4: 34.6%
Wave 5: 45.7%
Results

<table>
<thead>
<tr>
<th>Measure</th>
<th>Wave 6</th>
<th>Wave 7</th>
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</thead>
<tbody>
<tr>
<td>Binge Drinking</td>
<td>55.5%</td>
<td>80.6%</td>
</tr>
<tr>
<td>Any alcohol-related harms</td>
<td>67.7%</td>
<td>85.3%</td>
</tr>
<tr>
<td>DSM-IV Abuse</td>
<td>8.1%</td>
<td>16.5%</td>
</tr>
<tr>
<td>DSM-IV Dependence</td>
<td>12.6%</td>
<td>23.2%</td>
</tr>
<tr>
<td>DSM-5 Alcohol Use Disorder</td>
<td>23.6%</td>
<td>42.0%</td>
</tr>
</tbody>
</table>
Results

Effect of parental supply on outcomes in Wave 6
Results

Effect of parental supply on outcomes in Wave 7

[Graph showing odds ratios for Binge drinking, Any harms, DSM-IV Abuse, DSM-IV Dependence, and DSM-5 AUD]
Conclusions

• Similar to previous studies, parental supply of alcohol in adolescence increased risk of alcohol-related harm
• These effects did not persist into adulthood
• However - alcohol consumption differs across cultures, and these results may not generalise
• The study also demonstrates the utility and value of TMLE and machine learning in conducting robust analysis of complex data