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Characterization of Young Adult Impaired Driving Offenders and Response to Indicated Prevention
Coauthors and Conflicts of Interest

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  Prevention Research Institute
Thanks to . . .

Susan Long, manager of Maine’s Driver Education and Evaluation Programs
Alcohol Impaired Driving In US (2011)

• >1.2 million arrests
• 1 impaired driving fatality every 53 minutes
• Fatal crashes:
  – 31% had an impaired driver
  – Cost of $129.7 billion to public
• Impaired driving crashes (blood alcohol > 0.08%)
  – 52%: drivers were 18-24 years old (2010)
• Risk of a crash: greater for young people at all blood alcohol levels
• Overwhelmingly young men (self-report)
  – 88% of 18-20 year old
  – 75% of 21-24 year old
Young Adults and Intervention

- Emerging adults tend to respond less well to substance abuse intervention (compared to adults and younger adolescents)
Preventing Reoffense: Public Safety

- Jail, fines
- License suspension
- House arrest, electronic monitoring
- Vehicle impoundment
- Ignition interlock devices
Preventing Reoffense: Public Health

- Prevention and treatment to reduce problematic substance use
- Often combined with probation, license suspension, DWI courts
Summary

• Impaired driving creates emotional, physical, and societal costs
• Young adults disproportionately involved in arrests and accidents
• Relevant questions: what are their characteristics and how well do interventions work with them?
PRIME For Life (PFL)

- Delivered in groups, 12-20 hours
- Motivation-enhancing
- Theory-based
- Evidence-derived
- Manualized
PRIME For Life (PFL): Evidence Base

- Short and longer term change in cognitions and behavior
- Reduced impaired driving recidivism
- SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP)
Study 1: Recidivism in Maine (Three year)

<table>
<thead>
<tr>
<th>Intervention as Usual (IAU)</th>
<th>PRIME For Life (PFL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 hours: Weekend Intervention Program</td>
<td>20 hours</td>
</tr>
<tr>
<td>2 hours: NEEDS Assessment</td>
<td>9/1/2002-8/31/2003</td>
</tr>
<tr>
<td>9/1/1999-8/31/2000</td>
<td></td>
</tr>
</tbody>
</table>
Recidivism in Maine: Descriptives

Gender

- Female: 20%
- Male: 80%

Age

- 18-20: 40%
- 21-25: 60%
- 18-20: 40%
Three Year Recidivism in Maine

Odds Ratio (IAU vs PFL): 1.64, p = .03
Study 2: Three Questions (Latent Transition Analysis)

Among young adults court ordered to intervention:

• Who comes?
• How do they change?
• Who changes?
Study 2

• Program evaluation data
• Baseline to postintervention
  – Previous behavior vs. future intentions
• Five states (GA, IA, IN, KY, UT)
• 18 to 25 year olds, n = 1,075
Study 2: Participants

Gender
- Female: 31%
- Male: 69%

Age
- 18-20: 25%
- 21-25: 75%
Study 2: Participants

- High school: 35%
- Some college: 41%
- AA or higher: 15%
Study 2: Participants

Race/ethnicity

- White: 80%
- Multi-racial: 3%
- Native American: 1%
- Hispanic: 5%
- Black: 8%
- Asian: 2%
Study 2: Preliminary Analysis

• Intentions to use less in next 90 days than in 90 days prior to intervention
  – Usual number of drinks in a day
  – Frequency of 4 to 6 drinks
  – Frequency of 7 or more drinks

• All p < .001
### Question 1: Who Comes?

<table>
<thead>
<tr>
<th>Number of standard drinks</th>
<th>Baseline Groups: Type of Drinker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usual number</strong></td>
<td>Light</td>
</tr>
<tr>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>1 to 3</td>
<td>X</td>
</tr>
<tr>
<td>4 to 6</td>
<td></td>
</tr>
<tr>
<td>7+</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency 4-6</strong></td>
<td>Never</td>
</tr>
<tr>
<td>&lt; once a week</td>
<td></td>
</tr>
<tr>
<td>≥1 X week</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency 7+</strong></td>
<td>Never</td>
</tr>
<tr>
<td>&lt; once a week</td>
<td></td>
</tr>
<tr>
<td>≥1 X week</td>
<td></td>
</tr>
</tbody>
</table>
Question 2: How Do They Change?

Baseline

- Light: 27%
- Moderate: 17%
- Heavy: 29%
- Very Heavy: 27%

Postintervention

- Light: 61%
- Moderate: 28%
- Heavy: 12%
- Very Heavy: 12%
Question 2: How Do They Change?

<table>
<thead>
<tr>
<th>Baseline Groups (Past Behavior)</th>
<th>Transition Probabilities</th>
<th>Postintervention Groups (Future Intentions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light →</td>
<td>96%</td>
<td>Light</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3% Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% Very heavy</td>
</tr>
<tr>
<td>Moderate →</td>
<td>72%</td>
<td>Light</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27% Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% Very heavy</td>
</tr>
<tr>
<td>Heavy →</td>
<td>44%</td>
<td>Light</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51% Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5% Very heavy</td>
</tr>
<tr>
<td>Very heavy →</td>
<td>36%</td>
<td>Light</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28% Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36% Very heavy</td>
</tr>
</tbody>
</table>
Question 3: Who Changes?

• 21-25 versus 18-20 year olds
  – No difference in baseline group
  – No difference in transition probabilities

• Men versus women
  – No difference in baseline group
  – Among “Very heavy drinkers”: less likely to transition to “Light drinker” (OR= 0.52, \( p < .01 \))
Question 3: Who Changes?

- Use drugs versus not
  - More likely to be “Heavy drinkers” and “Very heavy drinkers” (ORs = 3.26 and 4.86, both $p < .001$)
  - Among “Very heavy drinkers”: less likely to transition to “Moderate drinker” (OR=.67, $p < .05$)
Summary

• A motivationally-based, structured, group-delivered indicated prevention program can reduce recidivism among young adults
Summary, continued

• Who comes?
  – Court ordered young adults vary considerably in self-reported drinking patterns
Summary, continued

• How do they change?
  – Substantial increase in groups intending lower drinking amounts
  – Typical transitions: higher to lower drinking groups, or remain in same group
  – Some appear less influenced (remain in same group)
Summary, continued

• Who changes?
  – Age and gender typically did not moderate change
  – Drug users tend to be heavier drinkers than drug abstainers, and change similarly
  – Some indications that drug users may be more likely to change to intending to be light drinkers; more research needed
Implications

• Indicated intervention holds promise for young adult impaired drivers

• Programs should be relevant to people with a range of drinking habits
  – Provide meaningful/interesting content to all
  – Reinforce those drinking lightly
  – Motivate others to reduce drinking

• More intensive intervention for subgroup of most challenging individuals