High-Risk Drinking
Alcohol use is ubiquitous
Peer Influences

Baer, 1994
Bergen Cico, 2000
Borsari & Carey, 2000
Corbin et al., 2011
Hawkins et al., 1992
LaBrie et al., 2007
Neighbors et al., 2004
Park et al., 2009
Read et al., 2005
Rulison et al. 2015
Edward et al. 2016

Elevated Availability/Increased opportunities

Saltz et al. 1995 2008
Grube et al., 2000 2008
Gordon et al. 2015
Increased Willingness
Mallett et al. 2010-2016
Reduced Social Controls

Abar et al., 2007-2009
Chassin et al., 2004-2008
Turrisi et al., 2000-2015
Patock-Peckham & Morgan-Lopez, 2007
Napper et al. 2014
Parenting

1) MRC Subgroup – 20% of drinkers experience 50% of consequences

Varvil-Weld et al. 2014
Parent Profiles

Positive Pro-Alc
(n=140; 38%)
- High levels of mother/father monitoring and mostly positive communication
- High levels of mother/father alcohol approval and use

Positive Anti-Alc
(n=128; 35%)
- High levels of mother/father monitoring and mostly positive communication
- Low levels of mother/father alcohol approval and use

Negative Mother
(n=72; 19%)
- Negative communication with mother
- Positive communication with father

Negative Father
(n=30; 8%)
- Negative communication with father
- More father drinking

Varvil-Weld et al. 2014
Brain Development & Self-Regulatory Behavior

~Age 13  ~Age 17  ~Age 20

Less red indicates a stronger connection between lobes of cerebral cortex.

Picture: Paul Thompson, Ph.D. UCLA Laboratory of Neuroimaging
Self-Regulation in Decision making

Reactive processes – willingness (Gerrard et al., 2008)

Rational processes – intentions (Fishbein & Ajzen, 1975)
Brain Development & Self Regulation
Prevention Framework

1. Epidemiology and Etiology
   - Ary et al., 1993
   - Abar et al., 2009
   - Barnes, 1986
   - Patock Peckham & Morgan Lopez, 2006; 2007
   - Reifman et al., 1998
   - Messier et al., 2016
   - Napper et al., 2015
   - Turrisi et al., 2008 2015
   - Varvil Weld et al. 2012 2013
   - Wood et al., 2001; 2004

2. Effectiveness/Proof of Concept
   - Turrisi et al., 2001
   - Turrisi et al., 2009 2012
   - Ichiyama et al., 2009
   - Testa et al., 2010
   - LaBrie et al., 2014 2016
   - Doumas et al., 2015

3. Effectiveness, Targeted, and Adaptations
   - Turrisi et al., 2009 2012
   - Ichiyama et al., 2009
   - Testa et al., 2010
   - LaBrie et al., 2014 2016
   - Doumas et al., 2015

4. Dissemination
## 15+ Years of Clinical Trials w/Parents

<table>
<thead>
<tr>
<th>Trial</th>
<th>Type of Sample</th>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>multi-site, incoming freshmen</td>
<td>Will parents implement an intervention, and will it work?</td>
</tr>
<tr>
<td>2</td>
<td>multi-site, incoming freshmen</td>
<td>Will parents implement an intervention, and will it work?</td>
</tr>
<tr>
<td>3</td>
<td>high risk population</td>
<td>Will PBI change culture in a high risk environment?</td>
</tr>
<tr>
<td>4</td>
<td>high risk population</td>
<td>Will PBI affect transitions between drinking groups?</td>
</tr>
<tr>
<td>5</td>
<td>high risk population</td>
<td>Will PBI decrease incidence of sexual consequences?</td>
</tr>
<tr>
<td>6</td>
<td>multi-site, high risk population</td>
<td>Do combined interventions work for high risk groups?</td>
</tr>
<tr>
<td>7</td>
<td>multi-site, high risk population</td>
<td>Do combined interventions work for high risk groups?</td>
</tr>
<tr>
<td>8</td>
<td>high risk population</td>
<td>Does intervention work best implemented at certain timing/dosage?</td>
</tr>
</tbody>
</table>
IV. Components - Parent-Based Intervention

- Brief Intervention
- Target Audience - Typical Families
- Written Handbook
- Motivation, Knowledge & Skills
- Behavioral Decision Theory

ClinicalTrials.gov
NCT01126151
NCT01126164
Feedback We’re Hearing

52 yr old father of 18 yr old female

“This information is of great value to a concerned parent. The communication techniques presented are excellent and very thorough.”

“Thank you for allowing me to participate. I found all of the material very useful and informative. Thanks for sending me a clean copy to share with a friend who has a teen who is currently facing several of these issues; I believe this handbook will help that mom a great deal.”

55 yr old female of 18 yr old male

“The “Reacting to what you hear” section in the “Improving Communication in General” chapter was excellent. Also, the Chapter “Talking about Alcohol” is excellent for a parent who has not been talking about the effects of alcohol. Very good for parents who have a difficult time with communicating with their teen - this book helps with that (not just about issues with alcohol).”

41 yr old mother of 18 yr old female

“There were many good points in each section of the handbook. I found it easy to relate to the “parent and teen responses” section. This handbook has brought up issues that I hadn’t thought of before. Overall I found this handbook to be extremely useful.”

45 yr old mother of 18 yr old female
1) Does the intervention work?

2) Does it work by family?

3) Why does it work?

4) Does it work in high risk environments?

5) Does it work with at-risk individuals?

6) Is it effective at changing risk profiles?
Weekend Drinking (DDQ)

Group F (1, 888) = 36.16  Interaction F (1, 888) = .63

(Turrisi et al. 2001 PAB)
Heavy Episodic Drinking

Group F (1, 888) = 17.51  Interaction F (1, 888) = .50

(Turrisi et al. 2001 PAB)
DUI

Group F (1, 903) = 46.77  Interaction F (1, 903) = 1.07

(Turrisi et al. 2001 PAB)
Smoked Cigarettes

Group F (1, 899) = 53.91  Interaction F (1, 899) = .82

(Turrisi et al. 2001 PAB)
Does it Work for Different Families?

- Parent Intervention: Treatment vs. Controls
- Drinking Tendencies
- e.g., Positive Communication Practices

Turrisi et al., 2005  ACER
Positive Communication: DDQ

Saturday

\[ b = -0.769, \text{ 95\% CI} = -1.26 & -0.29, \ p < 0.003 \]

<table>
<thead>
<tr>
<th>BA</th>
<th>AVG</th>
<th>AA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.96</td>
<td>4.41</td>
<td>4.14</td>
</tr>
<tr>
<td>3.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td></td>
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</tr>
</tbody>
</table>

The worse case scenario for the Treatment is better than the best case scenario for the Controls
### Monitoring: DDQ Saturday

-\[ b = .623, \text{ 95\% CI} = .05 & 1.52, p < .03 \]

<table>
<thead>
<tr>
<th>BA</th>
<th>AVG</th>
<th>AA</th>
<th>Number of Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.34</td>
<td>4.04</td>
<td>3.75</td>
<td>Control</td>
</tr>
<tr>
<td>3.42</td>
<td>2.43</td>
<td>1.46</td>
<td>Treatment</td>
</tr>
</tbody>
</table>

#### Number of Drinks

- BA (Baseline Assessment)
- AVG (Average)
- AA (After Action)

#### Monitoring

- Red: Treatment
- Yellow: Control
Parental Approval: DDQ Saturday

\[ b = -6.73, \text{ 95\% CI } = -11.23 \text{ & } -2.00, p < .006 \]
Why Does it Work?

Proxies for the immediate target variable and the self-regulation pathway change the connection is getting stronger.

Attitudes toward Drinking Activities
Attitudes toward Non-drinking Alternatives
Positive Transformations
Enhance Social Behaviors
Normative Approval
Negative Affect
Health Orientation

Program effect

Mediator Effect on Outcome

Parenting

Outcomes

Direct Effect

Turrisi et al., 2010 PAB
Behavior Change w/Hard to Reach Individuals

- Different Profiles

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thur</th>
<th>Fri</th>
<th>Sat</th>
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<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
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<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
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- Simply counting the number of drinks does not paint the whole picture

(Turrisi et al., 2013; Varvil-Weld et al. 2014)
## Identify Different Types of Profiles

<table>
<thead>
<tr>
<th></th>
<th>Non-Drinker</th>
<th>Weekend Non-Binger</th>
<th>Weekend Binger</th>
<th>Heavy Drinker</th>
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</thead>
<tbody>
<tr>
<td><strong>Past Month Drink</strong></td>
<td>0.10</td>
<td>0.99</td>
<td>1.00</td>
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<tr>
<td><strong>2-Week Binge</strong></td>
<td>0.00</td>
<td>0.10</td>
<td>0.83</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>BAC &gt; 0.08</strong></td>
<td>0.00</td>
<td>0.23</td>
<td>0.89</td>
<td>0.94</td>
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<tr>
<td><strong>Weekday</strong></td>
<td>0.00</td>
<td>0.05</td>
<td>0.08</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>Thursday</strong></td>
<td>0.00</td>
<td>0.06</td>
<td>0.02</td>
<td>0.74</td>
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<tr>
<td><strong>Weekend</strong></td>
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Is it Effective at Changing Risk Profiles?

Long term:
- High risk (heavy drinker) transitioned out of profile
- Weekend binge transitioned out of profile
Summary: Reducing Child Endangerment

• Multiple well controlled trials

• Parents make a difference by influencing changes to self-regulatory behaviors

• Drinking and consequences are reduced and health outcomes increased
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  Sarah Ackerman, M.S.
  Diana Poorman

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