INTRODUCTION

Investigating alcohol-specific feedback from social network members may be particularly useful for understanding social influences on alcohol use among community-dwelling emerging adults (EAs) and guide development of preventative interventions. To recruit this target group, we implemented Digital Respondent Driven Sampling (D-RDS), a peer-driven chain referral method that accesses social networks, a dominant influence on EA drinking.

The present study examined alcohol-related feedback from social network members among community-based EAs and its relation to their drinking patterns and consequences. Based on prior findings, drinking patterns and consequences among EAs were expected to be influenced differentially by feedback type (e.g., encouragement, discouragement) and source (e.g., friends, family, spouse).

METHOD

Data Analysis:
Weighted negative binomial regression analyses were conducted using SAS EG v8.1 to predict drinking practices and consequences with social network feedback measures. Several covariates associated with health risk behaviors in RDS studies were included to control for potential confounding (e.g., age, gender, race, education level, and yearly income).

Separate models were examined for the 3 different drinking outcomes and 3 social network sources. Table 1 presents the associations between social network feedback and drinking practices and consequences.

Sample:
“Seeds” (ages 21-29) were recruited in person at community venues (e.g., sport/music events, outdoor markets) to start D-RDS using verified target population members. D-RDS enrolled a desired sample of 357 risky EA drinkers living in the community (median age = 23.6 years; 64% female; median income <$20K/year; 86.7% educated beyond high school; < 10% married or have children). Seeds were excluded from analyses following standard RDS analysis procedures (Gile et al., 2015).

Social Network Assessment:
• Norbeck Social Support Scale (Tucker et al., 2015). Participants listed up to 10 network members by relationship and age and rated the extent to which each encouraged, discouraged, or gave mixed drinking feedback (1 = “not at all” to 5 = “a great deal”). Alcohol-related feedback was calculated for different sources, i.e., friends, spouse/partner, and other family members/relatives.

Outcomes:
• Number of drinks per drinking day during last month.
• Number of drinking days during last month.
• Negative drinking consequences during past 3 months (Brief Young Adult Alcohol Consequences Questionnaire, Kahler et al., 2005).

Table 1. Social Network Predictors of Drinking Practices and Consequences

<table>
<thead>
<tr>
<th>Social Network Subgroup</th>
<th>Norbeck Feedback on Alcohol Type</th>
<th>Drinks Per Drinking Day</th>
<th>Drinking Days Past Month</th>
<th>Negative Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B (SE)</td>
<td>B (SE)</td>
<td>B (SE)</td>
</tr>
<tr>
<td>Friends</td>
<td>Encouragement</td>
<td>0.073 (0.07)</td>
<td>0.007 (0.031)</td>
<td>0.059 (0.034)</td>
</tr>
<tr>
<td></td>
<td>Discouragement</td>
<td>0.09 (0.04)</td>
<td>-0.11 (0.034)**</td>
<td>-0.081 (0.038)*</td>
</tr>
<tr>
<td></td>
<td>Ambivalence</td>
<td>0.037 (0.043)</td>
<td>0.119 (0.063)**</td>
<td>0.098 (0.039)*</td>
</tr>
<tr>
<td>Family/Relatives</td>
<td>Encouragement</td>
<td>-0.04 (0.045)</td>
<td>-0.068 (0.036)</td>
<td>-0.031 (0.037)</td>
</tr>
<tr>
<td></td>
<td>Discouragement</td>
<td>-0.159 (0.047)**</td>
<td>-0.024 (0.042)</td>
<td>0.013 (0.042)</td>
</tr>
<tr>
<td></td>
<td>Ambivalence</td>
<td>-0.06 (0.056)</td>
<td>-0.004 (0.047)</td>
<td>0.033 (0.047)</td>
</tr>
<tr>
<td>Spouse/Partner</td>
<td>Encouragement</td>
<td>-0.03 (0.050)</td>
<td>-0.013 (0.039)</td>
<td>0.014 (0.044)</td>
</tr>
<tr>
<td></td>
<td>Discouragement</td>
<td>-0.034 (0.044)</td>
<td>-0.039 (0.036)</td>
<td>0.077 (0.041)</td>
</tr>
<tr>
<td></td>
<td>Ambivalence</td>
<td>-0.001 (0.055)</td>
<td>0.048 (0.043)</td>
<td>0.119 (0.049)*</td>
</tr>
</tbody>
</table>

NOTE: results for covariates omitted for simplicity
*p<.05; **p<.01; ***p<.001

RESULTS

Overall, social network feedback about participants’ drinking had utility in predicting drinking practices and consequences.
• Friends: Discouraging feedback was associated with fewer past month drinking days and fewer negative consequences.
• Ambivalent feedback (sometimes encouraging, sometimes discouraging drinking) from friends was associated with more drinking days and more negative consequences.
• Spouse/Partner: Ambivalent feedback was associated with more negative consequences in the past 3 months.
• Family/Other relatives: Associations were opposite for those for friends and spouse/partner; i.e., discouragement was associated with more drinks per drinking day.

None of the covariates was a consistent predictor across the different models, although the direction of associations was generally consistent with prior studies.

DISCUSSION

Results supported the feasibility of D-RDS to recruit community-dwelling EAs, which has potential for reach and scalability.

As hypothesized, drinking feedback from close social network members was associated with drinking practices and consequences among community-based EAs. While drinking typically occurs mostly with friends during this developmental stage, friends may act as protective influencers if they discourage drinking. In contrast, family discouragement of drinking was associated with more drinks per drinking day and appears to be counterproductive.

This research supports targeting social networks in interventions, especially network members who drink together. It suggests the importance of consistent messages regarding drinking and developing interventions to modify drinking behaviors and norms among close network members, while promoting engagement with different networks with more protective influencers.

References

