Social Norms, Actual Peer Substance Use, and Adolescent Substance Use using latent class analysis (LCA) of adolescent SU, peer SU, and perceptions of peer SU at three waves to underestimate peer SU (misperception -; Henry et al., 2011). Second, Pape (2012) argued that misperception who engage in SU tend to overestimate peer SU (misperception +) while adolescents who do not use tend to include actual peer SU, making it difficult to gauge the degree to which adolescents misperceive peer behavior. They influence behavior by providing informal rules and standards that perceptions of the extent to which peers engage in a behavior, such as peer substance use (SU), are consistent with alcohol use (Borsari & Carey, 2001). Researchers have found that when adolescents perceive their peers as engaging in SU, they are more likely to engage in SU themselves (van Belle et al., 2009). This suggests that the influence of peers on adolescent SU is not simply the result of direct social modeling or rewards, but rather is mediated by the perceived norms of the peer group (Hart et al., 2008). The following results were consistent across Waves:

### Aims and Study Hypotheses

**Aim 1:** Test cross-sectional structure of peer, perceived peer, and adolescents SU at Waves W1-W3. We predicted that class membership at each wave would replicate Henry et al. (2011) with 4-classes:

- Accurate perception (AP-users and AP-non-users would be highest in the misperception- class (selection).

**Aim 2:** Test whether classes differ on late adolescent (W3) outcomes. We hypothesized that all misperceptions would be highest and SFM differences would significant and would rank from highest to lowest in the following order:

- AP-users, misperception-, and misperception+.

**Aim 3:** Latent transition probabilities

**Aim 4:** Summary of Outcome Results

### RESULTS

#### Aim 1: Structure of the Final Model for the LCA from W1 to W3

<table>
<thead>
<tr>
<th>Classes</th>
<th>Misperception-</th>
<th>Misperception+</th>
<th>Misperception+ ALC</th>
<th>AP-user</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
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</tbody>
</table>

#### Aim 2: Validity Tests

To examine whether latent classes differed on constructs that have previously been shown to be related to SU, we conducted several validity tests. These included:

- **Multinomial Logistic Regression Results (Odd Ratios)**

### Table 1: Multinomial Logistic Regression Results (Odd Ratios)

<table>
<thead>
<tr>
<th>Class</th>
<th>Odds Ratio (OR)</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misperception-</td>
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</tr>
<tr>
<td>Misperception+</td>
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<tr>
<td>Misperception+ ALC</td>
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<tr>
<td>AP-user</td>
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</tbody>
</table>

#### Aim 3: Summary of LTA Results

1. High stability for AP-users and even higher for AP-users.

#### Aim 4: Summary of Outcome Results

1. **AP-users class**
   - Highest risk of peer engagement and influence, high levels of peer delinquency and pathological development were associated with the AP-users class when compared to AP-users.
   - Misperception- and AP-users were more likely to transition into the AP-users class than misperception+ from W1 to W3.

2. **Misperception+ class**
   - Youth were more likely to transition into the misperception+ class than AP-users from W1 to W3.

3. **Misperception+ ALC class**
   - Peers tended to be higher than other use groups on peer delinquency, frustration, and delinquent behavior.

4. Overall, these results provide support for the validity of the latent classes and help with interpretation of subsequent outcomes.

### CONCLUSIONS

#### Relationship Between Peer, Perceived Peer, and Adolescent SU (cross-sectional; LCA)

1. While some adolescents accurately perceive their peers’ SU, others over- or underestimate peer SU.
2. A. Documenting that adolescents do not uniformly overestimate their peers’ SU is important considering that normative feedback interventions can have negative effects for individuals who perceive misperception (Maller et al., 2012).

B. Adolescents who use alcohol as well as over-estimate the alcohol use of their peers may be highly motivated to seek out peers who use the positive social benefits associated with drinking.

#### Relationship Between Peer, Perceived Peer, and Adolescent SU (longitudinal; LTA)

1. W1 misperception- ALC class more likely to transition into AP-users class at W2 than misperception+.
2. Misperception- ALC class were more likely to engage in SU at W3 than AP-users.

#### Method

1. This research was supported by two grants from NIDA (R01 DA020171 and R01 DA019631 awarded to Craig Colder. The content of this poster is solely the responsibility of the authors and does not necessarily reflect the views of NIDA. Correspondence should be addressed to Matthew Scalco, Psychology Department, State University of New York at Buffalo, Buffalo, NY 14260. Email: mscalco@buffalo.edu

2. Data was collected from The National Youth Survey (NYS) wave 2001–2002 at ages 12-20. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study.

### Measures

**Adolescent and Parental SU:** Measures taken from The National Youth Survey (NYS) wave 2001–2002 at ages 12-20. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study.

**Parental SU:** Measures taken from Parental Survey wave 2001–2002 at ages 12-20. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study. Adolescents SU rates were estimated using validated alcohol and tobacco subtypes from the Parental SU wave 2001–2002 study.