Behaviors Increasing the Risk of Crash Injury in Latino Adolescent Males: The Influence of Acculturation and Parent Connectedness

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• Motor vehicle crashes (MVC) are the leading cause of death for U.S. teens and cause the largest proportion of mortality among Latino adolescent males.

• February 26, 2013 – GHSA released figures from 2012 showing 19% increase in teen driver deaths.

• Acculturation in U.S. Latino adolescents plays an important role in substance use propensity, and for adolescent drivers, substance use is a known risk factor for a serious or fatal MVC.

Castro, F.G., J.A. Stein, and P.M. Bentler, *Ethnic pride, traditional family values, and acculturation in early cigarette and alcohol use among Latino adolescents.*
We sought to assess the effects of acculturation and parent connectedness on behaviors increasing the risk of crash injury in Latino adolescent males.
Setting/Population

• New Haven is a city in southern Connecticut with a population of approximately 130,000, of which 27% is Latino.

• In 2010, the median household income was $35,000, compared to $64,000 in Connecticut as a whole.

• Forty-four percent of children under 18 years of age live in families with incomes below the federal poverty level, compared to 13% in the entire state.

• For Latinos, the median income was $31,000 and 51% of children under 18 years of age lived in families with incomes below the poverty level.

U.S. Census Bureau Decennial Census.
U.S. Census Bureau American Community Survey.
Methods

Sample and Materials

• Latino Males ages 15-18

• Recruited from 10/2011 - 10/2012 in six locations the New Haven, CT community

• Administered a validated acculturation measure, the Short Acculturation Scale for Hispanic Youth (SASH-Y), coupled with a modified youth health behavior risk survey.

Analysis

• **Acculturation** was assessed by calculating the sum total for each participant of the ten SASH-Y questions.

• **Parent Connectedness** was a binary variable created using the responses to questions regarding attitudes toward family and friends.

• Univariate regression analysis was performed to assess the effects of acculturation and low parent connectedness on engagement of a variety of risk behaviors.

Results

• We enrolled a total of 138 Latino adolescent males with an overall mean age of 16.9 years.

• Males of Puerto Rican descent represented the largest portion of the sample (59.1%).

• The majority of participants were US-born (61.6%), though most had at least one parent that was foreign born (84.1%).

• Few adolescents had a driver’s license or permit (10.1%) and many reported unlicensed driving (55.1%).
## Results

### Acculturation vs. Crash Risk Behaviors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has ever used Marijuana</td>
<td>0.056</td>
<td>0.021</td>
</tr>
<tr>
<td>Use of marijuana in the last 30 days</td>
<td>0.033</td>
<td>0.011</td>
</tr>
<tr>
<td>Age of first marijuana use</td>
<td>0.061</td>
<td>0.021</td>
</tr>
<tr>
<td>Number of lifetime marijuana uses</td>
<td>0.026</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

### Low Parent Connectedness vs. Crash Risk Behaviors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has ever been involved in a MVC</td>
<td>1.497</td>
<td>0.014</td>
</tr>
<tr>
<td>Has ever smoked cigarettes</td>
<td>1.968</td>
<td>0.003</td>
</tr>
<tr>
<td>Age of first cigarette use</td>
<td>2.043</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Occasions binge drinking in past year</td>
<td>0.158</td>
<td>0.024</td>
</tr>
<tr>
<td>Occasions drinking 5+ drinks in past year</td>
<td>0.170</td>
<td>0.006</td>
</tr>
</tbody>
</table>
Conclusions

• We show strong relationships between parent connectedness, acculturation, and substance use behaviors placing Latino teen males at increased risk for MVCs.

• Acculturation of study participants was found to be strongly associated with earlier and more frequent marijuana use.

• Low parent connectedness predicted smoking and binge drinking behavior among Latino teen males.
Discussion

- We demonstrate the importance of family and culture in reducing Latino teen male MVC risk behaviors.

- Further research into the protective effects of strong family connections in reducing Latino teen MVC risk is needed.
Discussion

Limitations

• Single, Northeastern city

• Latino population distinct from other regions of the US

• Various measures of acculturation available

• Parent connectedness measure not validated

• Univariate analysis

Future Directions

• Multivariate analysis

• Collected daily diaries from study participants reporting driving/riding behaviors and family interactions
Acknowledgments

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• Sites in New Haven, CT
  – Yale-New Haven Hospital
  – Junta for Progressive Action
  – Fair Haven Community Health Center
  – Hill Career High School
  – James Hillhouse High School
  – Wilbur Cross High School