Can I Have a Pack of Marlboros?: Minors’ Access to Tobacco

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Three major goals of presentation

• To expose you to a little bit about minors’ access research---an approach that differs greatly from the demand aspect that characterizes most psychological research in the area
• To provide examples where disparities and/or discrimination is a factor
• To talk about where the literature should go
First Study Looked at Single Cigarettes

• 206 stores each visited by 1 youth (either 15 or 17 years old) and 1 adult
• Of these, 101 (49.1%) sold
• Sold significantly more often to youth than adults and youth paid more for the cigarettes
• Least likely to be sold in white neighborhoods, more likely in integrated, and most likely in minority neighborhoods
• Now there is a law banning sales of single cigarettes


Became the Paradigm for How to Do These Studies

- Recruit children of faculty, staff, and students primarily as well children who are participating in local programs that focus on youth health
- Send children into stores and have them try to buy cigarettes
- Youth memorize a script so that they all behave the same way (“Can I have a pack of Marlboros?”)
- Children are paid for every purchase attempt (PA), irrespective of its success
- Began to wonder if other factors could affect sales
Impact of Sociocultural Variables on Sales of Cigarettes to Children

- Gender of the child
- Age of the Child (10 v 14 v 16 year olds)
- Ethnicity of the Child (White v Black v Latino)
- Ethnicity of the Neighborhood
  - Small stores (randomly selected) in predominantly White, Black, and Latino census tracts
- Gender of the Clerk
- Ethnicity of the Clerk
- Each minor made 1 Purchase Attempt (PA) in each of 72 stores, total PAs = 2,592 (36 minors X 72 stores)
- 50% of PAs were for packs; 50% for singles

Percent of Sales by Age, Gender, and Ethnicity

- White boys
- African American boys
- Latino boys
- White girls
- African American girls
- Latina girls
• Child characteristics --- age, gender, and ethnicity --- all affected sales

• Clerks did NOT sell to any and all children, but instead selected the children to whom they sell cigarettes

• They sold to older children, minorities, and girls

• And not all clerks sold, only some did

• All of this suggested that the topic was more complicated than we had thought

• After this we became the statewide contractor for collecting these data
Statewide sales of cigarettes to youth
Logistic regression predicting sales from youth gender, ethnicity, and age; clerk gender and apparent age and ethnicity; year; and if the clerk asked for age or ID

<table>
<thead>
<tr>
<th>Variable and Step</th>
<th>Reference</th>
<th>Beta</th>
<th>OR</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ask for ID</td>
<td>Yes</td>
<td>6.682</td>
<td>797.534</td>
<td>575.166</td>
<td>1105.872</td>
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<tr>
<td>2. Ask age</td>
<td>Yes</td>
<td>5.34</td>
<td>208.559</td>
<td>136.216</td>
<td>319.321</td>
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<tr>
<td>3. Age of minor</td>
<td>15</td>
<td>0.931</td>
<td>2.537</td>
<td>1.917</td>
<td>3.358</td>
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<td>4. Clerk age</td>
<td>&gt; 25</td>
<td>0.920</td>
<td>2.510</td>
<td>1.826</td>
<td>3.450</td>
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<td>5. Minor gender</td>
<td>Boy</td>
<td>0.777</td>
<td>2.174</td>
<td>1.652</td>
<td>2.862</td>
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<td>6. Year</td>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>-0.779</td>
<td>0.459</td>
<td>0.226</td>
<td>0.932</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>-1.265</td>
<td>0.282</td>
<td>0.135</td>
<td>0.588</td>
</tr>
<tr>
<td>7. Ethnicity</td>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>0.697</td>
<td>2.008</td>
<td>1.138</td>
<td>3.543</td>
</tr>
</tbody>
</table>
So has youth access decreased?

• Our data suggest that access has decreased but youth still get tobacco
• Studies indicate that as youth access to tobacco from commercial sources (stores) decreases because of the law, access from social sources (people) increases
• Young children (ages 10-16) now rely on older children to buy tobacco for them or give tobacco to them
• What that means however is that older children are still buying cigarettes (and supplying younger ones) even though evidence indicates that older youth have severely curtailed access to tobacco
• Literature began to focus on “social” sources and the tricks youth do to obtain cigarettes


“Familiarity”--Buying from Clerks who know the Youth

• 18 15-17 year olds participated (11 boys, 7 girls; 5 age 15, 9 age 16, 4 age 17; 14 Anglo, 1 African-American, 3 Latino)

• Had youth go to the same store, find the same clerk, and buy an item on 4 different occasions

• Instructed to make conversation with clerk so that they were noticed

• On the fifth visit each youth asked the clerk if they could have a pack of cigarettes

• So we experimentally rendered the youth “familiar”
Youth attempted to purchase cigarettes once in all stores using 4 different purchase protocols in this order:

- Standard Protocol Time 1
- Familiarity Protocol
- Standard Protocol Time 2
- Standard Protocol Time 3
  - 4-6 weeks between each protocol

Total of 915 PAs
Protocol was the best predictor of cigarette sales
- Youth in the Familiarity Protocol were 5.5 times more likely than those in the Standard Protocols to be sold tobacco
- No significant differences among the Standard Protocols

Overall access rates were
- Standard Time 1 = 6.5%
- Familiarity = 24.3%
- Standard Time 2 = 11.0%
- Standard Time 3 = 8.4%

Access rates by ethnicity in the Familiarity Protocol
- White youth = 24.4%
- African-American youth = 20.5%
- Latino youth = 42.9%

Access rates by age in the Familiarity Protocol
- 15 year olds = 8.0%
- 16 year olds = 23.6%
- 17 year olds = 62.5%
“Shoulder tap” study

• 16 youth aged 15 to 17 (10 boys, 6 girls; 10 Anglo, 2 Black and 4 Latino) participated in pairs
  – One as “asker” and the other as “recorder”
• 223 stores randomly selected stores

“Asker” approached each adult entering the store and asked, “Will you buy me a pack of Marlboros, please?”

- If adult refused, youth approached next adult and repeated the request
- If adult agreed, youth provided funds for the purchase, then waited for adult to return and leave

“Asker” and “recorder” then switched roles

“Recorder” kept track of adult gender, ethnicity, and approximate age of adult

Pair remained in front of store for ½ hour

Made 1 to 21 requests, contingent on the number of adults entering the store in that time
“Shoulder tap” Results

- Youth approached 1,285 adults (906 men [70.0%] and 379 women [29.5%])
- Of these
  - 412 (32.1%) purchased cigarettes for the youth
  - 856 (66.6%) refused
  - 17 (1.3%) agreed to purchase the cigarettes but then stole the youth’s money
• Youth age and ethnicity also played a role
• Adults were more likely to buy cigarettes for 16 (34.7%) and 17 (44.9%) year olds than 15 year olds (24.7%)
• And were less likely to buy cigarettes for African American (21.4%) than White (39.3%) youth
• Only 9 of the 1,285 adults asked youth their age
• 65 adults agreed to buy the cigarettes if
  – The youth let them keep the change (n=30)
  – The youth let them have some of the cigarettes (n=35)
  – The majority of those making “deals” (n=47) were with men, as were the 17 who stole the youth’s money
# Clerk Compliance vs. Youth Behavior: Percentage of Cigarette Sales to Youth

<table>
<thead>
<tr>
<th>YOUTH BEHAVIOR:</th>
<th>CLERK COMPLIANCE: Demanded Youth ID</th>
<th>NO</th>
<th>YES</th>
<th>Row $X^2$ (df = 1)</th>
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<tbody>
<tr>
<td>Normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Protocol 1</td>
<td></td>
<td>36.1</td>
<td>1.0</td>
<td>61.927 *</td>
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<tr>
<td>Standard Protocol 2</td>
<td></td>
<td>61.8</td>
<td>2.5</td>
<td>102.333 *</td>
</tr>
<tr>
<td>Standard Protocol 3</td>
<td></td>
<td>49.0</td>
<td>0.0</td>
<td>96.952 *</td>
</tr>
<tr>
<td>Standard Protocol 4</td>
<td></td>
<td>44.2</td>
<td>0.0</td>
<td>87.836 *</td>
</tr>
<tr>
<td>Standard 1-4 Combined</td>
<td></td>
<td>47.6</td>
<td>0.9%</td>
<td>347.753*</td>
</tr>
<tr>
<td>Manipulative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot-in-the-Door</td>
<td></td>
<td>32.7</td>
<td>3.0</td>
<td>39.648 *</td>
</tr>
<tr>
<td>Note from Dad</td>
<td></td>
<td>17.5</td>
<td>1.4</td>
<td>11.230 *</td>
</tr>
<tr>
<td>Lie About Age</td>
<td></td>
<td>80.0</td>
<td>3.0</td>
<td>140.716 *</td>
</tr>
<tr>
<td>Overall Column $\Pi^2$ (df = 3)$^a$</td>
<td></td>
<td>62.327</td>
<td>6.776 (not significant)</td>
<td></td>
</tr>
</tbody>
</table>

* $p = .0005$

$^a$ Compares Standard Protocols 1-4 combined (Normal Behavior) to the three manipulative conditions.

$^b$ Standard 1-4 combined vs. Foot in the Door $\Pi^2$ df 1 = 3.681, $p = .055$

$^c$ Standard 1-4 combined vs. Note from Dad $\Pi^2$ df 1 = 33.247, $p = .0005$

$^d$ Standard 1-4 combined vs. Lie about Age $\Pi^2$ df 1 = 12.193, $p = .0005$
Wondered About the Use of the Internet (2003-2004)

• Also evaluated minors’ ability to buy cigarettes over the internet
• 30 15 and 16 year olds participated
• Brought our own laptop to each of their houses, created an email account for them
• Instructed each to do what they needed to do to buy a carton of cigarettes using their parent’s credit card
• Instructed to be as quick as possible because we were timing them
Most used a single search term --- cigarettes --- often spelled incorrectly

Nonetheless, 29 of 30 placed an order

Mean time to do so was 25.8 minutes (mode 7 minutes)

14 different sites were used, with 13 merely requiring that the youth “click here” if he/she were old enough to buy

23 of 30 received cigarettes in the mail and 91% of these were delivered with no request for proof of age

• Led to work with the CA attorney general’s office
• Hired youth and had them use undercover credit cards to buy cigarettes
• Reported data to the AG, who used the data to negotiate that credit cards NOT be used to purchase cigarettes over the internet
Moved on to E-Cigarettes on the Internet

- Frank Sotelo has taken the lead on this
- Started out using parent credit cards, but…
- Eventually went to undercover credit card
- Visited a total of 253 sites
  - Only 18.4% of the sites asked the youth’s date of birth
  - If website asked, there was no difference in sales rate (19.2% didn’t sell, 17.8% did, $\chi^2 = 0.082$, ns)
• If website asked youth if they were 18, was a significant difference
• Only 25.6% of the outlets asked, but if they did (and the youth lied) 70.3% of the outlets sold ($\chi^2 = 5.025, p = 0.025$)
• Of the 253 sites, 54.4% actually sold to the youth
• This has become part of additional AG action
• So 20 years, $5,000,000, and who knows how many packs of cigarettes later
• Now not sure that the methods we are using actually represent how kids get cigarettes
• Still haven’t been able to come up with better way
• Regardless ethnicity, gender, and age are all factors
• Have had an effect on sales in many areas and ways