How Hollywood Hooks Kids: The Effects of Seeing Movies on Smoking

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Motion Picture Industry Viewpoint

“I believe films always mirror society; what film makers are trying to do is to document what’s happening in society…I think that if people are going to be influenced to start smoking or smoke cigarettes as a consequence of watching motion pictures or television, then they probably need more help than anyone can give them.”

– Male, director/producer
Tobacco Industry Viewpoint

“The medium is the message, and the message would be right — part of the show. How different from being the Corporate Moneybags or pushing samples in the lobby. It's the difference between B&W [Brown and Williamson Tobacco] doing commercials in movie houses and Marlboro turning up in the movies.

“Pull, not push. Nobody tells them the 'answer,' they just know. Not 'why are you smoking that?' but 'I saw that video — can I try one?' If they feel like wearing the badge, they'll buy it. Like magic.” — RJR Marketing Executive
Goal of this Presentation

- This presentation will change the way you **view** and **interpret** movies
Content Analysis

- What can we say about tobacco use in movies?
  - Dose
  - Content
Smoking in Movies is Increasing

Source: Glantz, S. University of California at San Francisco.
Dose: Occurrences of Movie Tobacco Use
601 popular box office hits during the years 1988-1999

Number of Smoking Occurrences

Fear and Loathing In Las Vegas
Summer of Sam
Donnie Brasco
Boogie Nights
Trainspotting
Saving Private Ryan
Bugsy
Keys to Tulsa

101 Dalmations
Dick Tracy
Dead Poets Society
The Phantom
League of Their Own
That Thing You Do
Sgt. Bilko
Apollo 13
Maverick
Who Framed Roger Rabbit
Waterworld
Biloxi Blues
The Client
Titanic
Shine
Forrest Gump
Down Periscope
Wild Wild West
Far and Away

G
N = 23
Median = 1

PG
N = 120
Median = 3

PG13
N = 186
Median = 4.5

R
N = 272
Median = 8
Smoking in PG13 movies is increasing

- 92% of top 10 grossing PG13 films in theaters in July-October, 2002 included tobacco

- Two out of three tobacco shots in the Top 50 movies from April 2000 – March 2001 were in G/PG/PG13 movies
  - The year before on 21% of tobacco occurrences were in G/PG/PG13

- The amount of screen time devoted to smoking in PG 13 movies increased by 50% between 1996/7 and 1999/2000
  - Tobacco industry promised to stop product placement in 1998 Master Settlement Agreement

Source: Mekemson C. Thumbs up-Thumbs down. ALA, Sacramento.
Screen Time

- Tobacco depictions take up less than 4 minutes of screen time in over 75% of movies
Conclusions

- Tobacco use occurs frequently
  - It is widespread in youth-oriented films, and growing in PG13

- Tobacco use takes up little screen time
  - Removing it would affect only 5% of the movie
Teens and Movies: How much do they watch?
# Exposure to Non-Interactive Screen Media by Age

**TABLE 10-A**

**Average Daily Time with Each Medium**

<table>
<thead>
<tr>
<th>Medium</th>
<th>2-4</th>
<th>5-7</th>
<th>8-10</th>
<th>11-13</th>
<th>14-18</th>
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<tbody>
<tr>
<td>Videos (commercial)</td>
<td>0:32&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0:21&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0:27&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>0:31&lt;sup&gt;ac&lt;/sup&gt;</td>
<td>0:29&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Movies</td>
<td>0:01&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0:02&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0:30&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0:22&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0:11&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

3 Movies per Week
150 Movies per Year
Man, what is that urge? Oh yeah - I could use a smoke...
An R rating reduces the likelihood that a teen will see a movie …

Distribution for the percent of adolescents who had seen movies by MPAA rating. G=23, PG = 120, PG-13 = 186, R = 272
… but Kids do see Lots of R rated Movies

<table>
<thead>
<tr>
<th>Title</th>
<th>Responses</th>
<th>%seen</th>
<th>Year</th>
<th>Rating</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Speed</td>
<td>481</td>
<td>67.6</td>
<td>1994</td>
<td>R</td>
<td>1</td>
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<tr>
<td>Scream</td>
<td>473</td>
<td>66.4</td>
<td>1996</td>
<td>R</td>
<td>2</td>
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<tr>
<td>I Know What You Did Last Summer</td>
<td>470</td>
<td>60.4</td>
<td>1997</td>
<td>R</td>
<td>3</td>
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<tr>
<td>Air Force One</td>
<td>458</td>
<td>58.3</td>
<td>1997</td>
<td>R</td>
<td>4</td>
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<tr>
<td>I Still Know What You Did Last Summer</td>
<td>460</td>
<td>58.3</td>
<td>1998</td>
<td>R</td>
<td>5</td>
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<tr>
<td>Scream 2</td>
<td>464</td>
<td>58.2</td>
<td>1997</td>
<td>R</td>
<td>6</td>
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<tr>
<td>There's Something About Mary</td>
<td>460</td>
<td>57.8</td>
<td>1998</td>
<td>R</td>
<td>7</td>
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<tr>
<td>Terminator 2: Judgment Day</td>
<td>478</td>
<td>55.7</td>
<td>1991</td>
<td>R</td>
<td>8</td>
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<td>Con Air</td>
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<td>1997</td>
<td>R</td>
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<td>1995</td>
<td>R</td>
<td>13</td>
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<td>Faculty, The</td>
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<td>49.3</td>
<td>1998</td>
<td>R</td>
<td>14</td>
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<td>48.6</td>
<td>1997</td>
<td>R</td>
<td>15</td>
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<td>Die Hard</td>
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<td>1988</td>
<td>R</td>
<td>16</td>
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<td>Pretty Woman</td>
<td>471</td>
<td>45.7</td>
<td>1990</td>
<td>R</td>
<td>17</td>
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<tr>
<td>Saving Private Ryan</td>
<td>478</td>
<td>45.6</td>
<td>1998</td>
<td>R</td>
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<tr>
<td>Jerry Maguire</td>
<td>475</td>
<td>45.3</td>
<td>1996</td>
<td>R</td>
<td>19</td>
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<tr>
<td>Die Hard 2</td>
<td>465</td>
<td>45.2</td>
<td>1990</td>
<td>R</td>
<td>20</td>
</tr>
</tbody>
</table>
Cigarette Brand Appearances in Movies
Figure 3: Films containing actor endorsement, background appearances, or both before and after voluntary ban.
Cigarette Brands Placed in Movies

- Marlboro 40%
- Camel 11%
- Winston 17%
- Lucky Strike 12%
- Other 20%
- Camel 11%
Conclusions

- Tobacco use occurs frequently
- Tobacco use takes up little screen time
  - Removing it would affect only 5% of the movie
- Cigarette brands appear often
  - Increasingly endorsed by actors
  - The most highly advertised brands account for most brand appearances (advertising motive)
Salience of Tobacco Use in Films

- Does the depiction mirror society?
  - Does it reflect smoking in the real world?
    - No
  - Or does it look more like a cigarette ad?
    - Yes

- Is the depiction artistic or commercial speech?
  - Are there potential commercial implications?

- What is the message kids are likely to take away?
  - Could viewing this alter their attitudes?
  - Could it influence their behavior?
Linking Tobacco Use in Movies with Adolescent Smoking

- Is what they view related to what they do?

- Measure the Exposure
  - How much smoking do adolescents see in the movies they watch?
  - Does it vary from adolescent to adolescent?

- Link seeing smoking with trying smoking
Survey Kids

- School-based survey of 4795 kids
- 15 randomly selected New Hampshire and Vermont middle schools
- Grades 5 to 8
- Boys and girls equally represented
- From urban and rural communities
How Did We Measure Smoking?

- Ever tried smoking
  - How many cigarettes have you smoked in your life?
    - None
    - Just a few puffs
    - 1-19 cigarettes (less than a pack)
    - 20-100 cigarettes (one to five packs)
    - More than 100 cigarettes (more than five packs)
How Did We Measure Exposure to Movie Smoking?

- Two stage assessment:
  - Stage 1. We counted occurrences of tobacco use or imagery in each of 601 recent popular motion pictures (content analysis)
  - Stage 2. Each student was asked to select movies they had seen from a list containing a random subset of 50 titles
  - Combine Stages 1 and 2. Movie tobacco occurrences viewed were summed for each student
Generate movie lists

- Randomly select 50 movies for each survey
- Use stratified sampling to ensure representative distribution by rating (45% R, 31% PG 13, 20% PG, 4% G)

Select Popular Movies

- Box office hits
  - Top 100, 1996-1998: N = 300
  - Top 50, 1999 (assessed 6/30/99): N = 50
- With popular teen stars: N = 51

Survey Students

- Questionnaire assesses which of the 50 movies the adolescent has ever seen
  - Median = 17, Interquartile range 11-22

Content Analysis

- Count the tobacco use occurrences in each movie

Merge

Movie Tobacco Use Exposure Variable

- Number movie tobacco use occurrences seen
  - Median = 91, Interquartile range 49-152
Exposure to Tobacco Use in Movies

- Number of tobacco occurrences seen
  - 0-50  26.1%
  - 51-100  28.6%
  - 101-150  19.7%
  - >150  25.7%

Number of Tobacco Occurrences Seen
Can we link what they view with what they do?

Is higher exposure associated with a higher rate of smoking?
Exposure to Tobacco Use in Movies and Adolescent Smoking

Tried Smoking (percent)

Occurrences of Tobacco Use Viewed

- 0-50
- 51-100
- 101-150
- >150
Is the Association Independent of Other Factors Known to be Linked with Smoking?
Stratification

No Movie Effect

Percent Tried Smoking vs. Exposure to Movie Tobacco Use

- Grade 5
- Grade 6
- Grade 7
- Grade 8
Association is Independent of Grade

![Graph showing the association between exposure to movie tobacco use and percent tried smoking, with no significant difference across grades.](image-url)
By Sensation Seeking Status

Exposure to Movie Tobacco Use

Percent Trying Smoking

- Low
- High

0-50
51-100
101-150
> 150
Exposure to Movie Tobacco Use

By Gender

Percent Trying Smoking

- Female
- Male

Exposure to Movie Tobacco Use:
- 0-50
- 51-100
- 101-150
- > 150
But What About Parenting Style?
Parenting Style: Authoritative Parenting

- **Responsive**
  - She listens to what I have to say
  - She makes me feel better when I’m upset
  - She wants to hear about my problems

- **Demanding (rules/monitoring)**
  - She makes me follow her rules
  - She tells me what time I have to be home
  - She knows where I am after school
## Parenting Style

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<th></th>
<th>Demanding</th>
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<td></td>
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</tr>
<tr>
<td>Res</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
Parenting Style and Smoking

Ever Tried Smoking (percent)

- Neglectful
- Indulgent
- Authoritarian
- Authoritative
By Parenting Status

Exposure to Movie Tobacco Use

Percent Trying Smoking

Neglectful
Indulgent
Authoritarian
Authoritative
## All Else Being Equal:

### Odds of Trying Cigarettes by Exposure to Movie Tobacco Use

<table>
<thead>
<tr>
<th>Movie tobacco occurrences seen</th>
<th>Crude</th>
<th>Adjusted for Socio-demographics (and school)</th>
<th>Adjusted for Socio-demographics &amp; Other social influences</th>
<th>Adjusted for Socio-demographics &amp; Other social influences &amp; Characteristics of child/parenting</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>51-100</td>
<td>3.1</td>
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<td>1.8</td>
<td>1.9</td>
</tr>
<tr>
<td>101-150</td>
<td>5.6</td>
<td>4.2</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>&gt;150</td>
<td>9.0</td>
<td>6.5</td>
<td>3.0</td>
<td>2.4</td>
</tr>
</tbody>
</table>
Conclusions

- Viewing tobacco use in movies is linked with
  - higher rates of smoking among adolescents
  - among never smokers:
    - more positive attitudes toward smoking
    - a higher risk of trying smoking later on
  - because the association is strong and the exposure high in the general population of adolescents, movie smoking accounts for about 1/3 of adolescent smoking
The Solution

- Certify no payoffs
- Require strong anti-smoking ads
- Stop identifying tobacco brands
- Rate new smoking movies “R”
The Solution

- **Certify No Pay-Offs**
  The producers should post a certificate in the credits at the end of the movie declaring that nobody on the production received anything of value (cash money, free cigarettes or other gifts, free publicity, interest-free loans or anything else) from anyone in exchange for using or displaying tobacco.
The Solution

- **Require Strong Anti-Smoking Ads**
  Studios and theaters should require a genuinely strong anti-smoking ad (not one produced by a tobacco company) to run before any film with any tobacco presence, regardless of its MPAA rating.
The Solution

- **Stop Identifying Tobacco Brands**
  There should be no tobacco brand identification nor the presence of tobacco brand imagery (such as billboards) in the background of any movie scene.
The Solution

■ **Rate New Smoking Movies "R"**

Any film that shows or implies tobacco should be rated "R." The only exceptions should be when the presentation of tobacco clearly and unambiguously reflects the dangers and consequences of tobacco use or when it is necessary to represent accurately a real historical figure.
To learn more and get involved:
www.SmokeFreeMovies.ucsf.edu

NEW! Updated lists of people working on movies that include a lot of tobacco.

Hollywood stars like these attract millions of moviegoers.

Philip Morris, RJ Reynolds, Brown and Williamson and other big tobacco companies than addict and kill them, making billions in profits.

This site uncovers that story. Identifies who’s responsible, by name. And shows you how you can stop the U.S. film industry from doing Big Tobacco’s dirty work in the U.S. and around the world.