



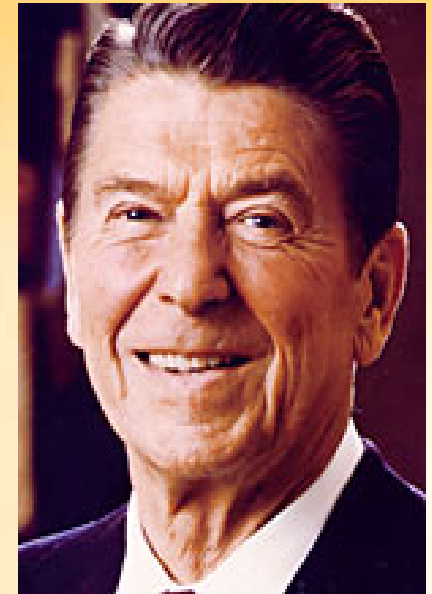
Impact of tobacco-related press coverage on smoking attitudes and behaviors of American youth

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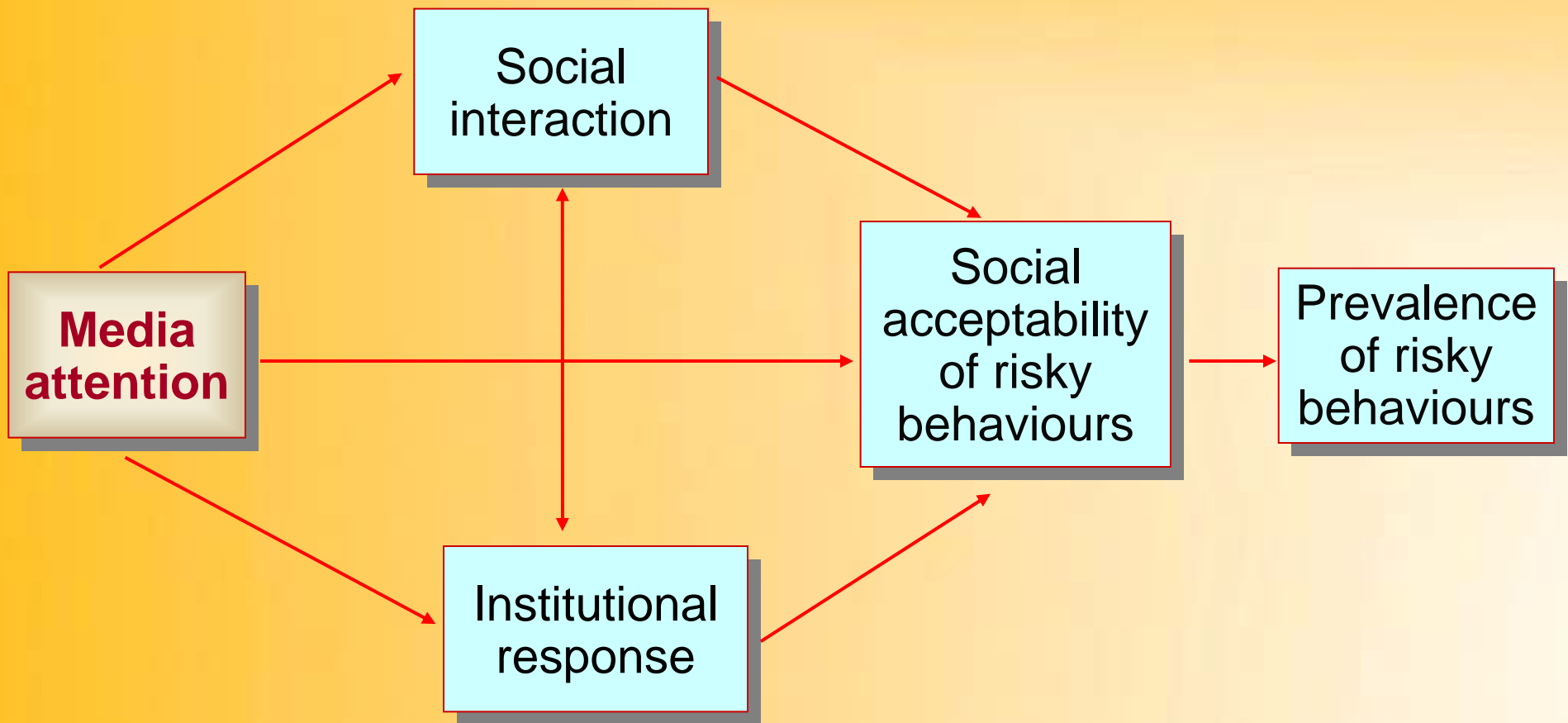
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Effects of news media

- **We know that:**
 - **Celebrity diagnosis of illness influences health behavior from case studies**
 - **People say the news media is a major source of health information**
- **BUT little systematic quantitative study of this source of media influence on smoking behavior, especially among youth**



Direct/indirect pathways of media influence



Study aims

- Large variability in youth smoking in different US communities – to what extent might news media contribute to this variation?
- Relate extent and type of newspaper coverage on tobacco issues to youth smoking attitudes and behavior



Methods

- **Sample of newspaper articles on tobacco issues from 386 daily newspapers that circulated at $\geq 5\%$ in US communities in which MTF survey was conducted in 2001-2003.**
- **National newspaper monitoring service clipped tobacco-related articles according to search terms**
- **Sampled one-third of days per month and conducted content analysis**



News article coding

- Each article coded for nature of reported event:
 - **Positive** for TC objectives
 - **Setback** for TC objectives
 - **Mixed/Neutral** implications for TC
- Each article coded for **SHS** or other theme
- Each *commentary* article (letter, editorial, column, cartoon) coded for explicit opinion:
 - **Supportive** of TC objectives
 - **Opposed** to TC objectives
 - **Mixed/Neutral** view about TC



Exposure to news on tobacco

- **Calculated n of articles/month per newspaper** (accounting for days/month published)
- **Newspapers assigned to MTF schools by zip code circulation rates** (using Audit Bureau of Circulation data)
- **N articles X circulation rate in each zip code = per community count of articles/month**
- **Summed 5 months leading up to date of MTF survey administration**
- **8,390 newspaper articles from 386 daily newspapers** (x 3 = 25,170 is the census of articles)



Outcomes variables: MTF survey

- School-based sample of 8th, 10th, 12th graders in contiguous United States
- Self-completion in February – June
- 2001-2003 data available
- Students matched to newspaper exposure data = 125,498 (92% of initial sample)



Outcome variables

- **Perceived harm of smoking: believe people risk great harm from smoking \geq pack cigs/day**
- **Smoked in past 30 days: yes/no**
- **Consumption among current smokers: measured by 6 point scale <1 cig/day (0.5); 1-5/day (3.0) about $\frac{1}{2}$ pack day (10;) about 1 pack/day (20); about $1\frac{1}{2}$ packs/day (30) and 2+ packs/day (40). Natural log used.**



Analysis

- **Regression analyses (SVYLOGIT and SVYREG)**
- **Accounted for clustering** (students within communities, with each community having single measures of news coverage)
- **Applied sampling weights accounting for the probability of survey participation**
- **Adjusted for:**
 - **Policies: cigarette price (real price/pack excl generics), strength of state smoke-free laws**
 - **Year of survey; region of country; youth state smoking prevalence in 1995/1996 (15-18 year olds from CPS-TUS)**
 - **Individual variables: gender, grade, race/ethnicity, real earned income, av. parental education, live with both parents, GPA, evenings out/week, truancy**



Sample Characteristics

- **N = 98,747** (excl missing cases on control variables)
- **47.2% male**
- **Evenly split between grades**
- **18.3% smoked in past 30 days**
- **5.5 cigs/day among current smokers**
- **69.7% perceived great harm of smoking pack cigs/day**



Sample Characteristics: news exposure in MTF communities over 5 month period

- **5 month sum of newspaper articles was 11.9 per community** (range 0 - 55.7)
- **Communities exposed to more coverage of positive events for tobacco control** (7.2 articles per community) **than negative events** (2.4 articles per community) **or mixed/neutral** (2.2 per community)
- **SHS articles av. 2.7 per community** (range 0–20)
- **Commentary coverage:**
 - more likely to be positive (1.3 per community) than negative (0.4)
 - 31% of communities had any mixed/neutral commentary



Results: Volume of total coverage

- For every 10 article increase in newspaper volume per community:
 - Higher perceived harm
 - OR=1.04 (1.01-1.07, $p<.01$)
 - Lower past month smoking
 - OR=0.93 (0.89-0.97, $p<.001$)
 - No effect on consumption
 - B= -.02 (SE=0.019)



Results: Content of coverage

- **Coverage of events: Generally no effects of events on outcomes**
 - Exception: 10-article increase in positive event = more perceived harm of smoking (OR=1.09 $p<.05$)
- **SHS coverage**
 - More articles on SHS unrelated to outcomes
- **Commentary: extent of supportive or oppositional coverage and any/none mixed/neutral coverage unrelated to outcomes**



Summary and interpretation

- **More news on tobacco associated with positive youth outcomes; nature of coverage generally unrelated**
- **Agenda-setting function of news**
 - **More tobacco control activity = more news = more discussion of tobacco control = more policy change = change in smoking behavior**
 - **Subtle framing may be less important than repetition of mention of tobacco as an issue in terms of newsworthiness**



Limitations

- Used newspapers as proxy for all news media coverage
- Newspapers matched to communities by school zip code – not all students live in school zip code
- Newspaper exposures are community level measures; MTF data are individual level measures
- Volume was strongly positive, and social climate currently negative towards tobacco. Results may apply only to locations with fairly positive tobacco control movements.
- Framing effects may be too small to detect at population level



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