

# Contextual Influences on Adolescent Risk Behavior: Mass Media

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CENTER FOR HEALTH,  
INTERVENTION, AND PREVENTION

# Overview / Conclusions



- Media strategies to improve adolescents' health behaviors *should* be enlightened by modern application of contemporary persuasion theory.
- Extensive research demonstrates that appropriately targeted interventions *can* produce substantial and long-term health behavior change.
- A paucity of available research:
  - directly applies persuasion theory to adolescents.
  - integrates individual-level variables with structural-level variables.

# Contemporary Persuasion Theories

1. Information Processing Model (McGuire, 1968)
2. Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986)
3. Heuristic Systematic Model (HSM) (Chaiken, 1980)
4. Unimodel (Kruglanski & Thompson, 1999)
5. Cognition in Persuasion Model (CPM) (Albarracín, 2002)

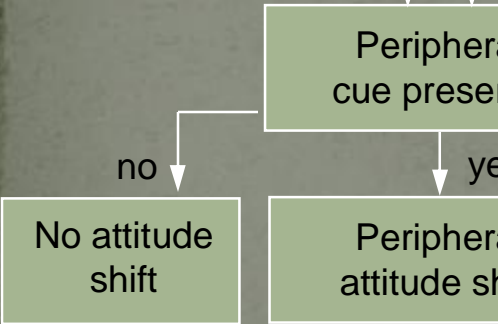


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Nicotine is a drug found naturally in tobacco. When you smoke, it becomes physically and emotionally addictive. You must deal with both the physical and psychological effects.

**How nicotine gets in, where it goes**

When you inhale smoke, nicotine enters your bloodstream and is carried through your lungs and blood vessels, your hormones can be found in breast milk and nicotine freely crosses the placenta to newborn infants.

Different factors affect how long regular smokers will still have nicotine in their systems days after stopping.

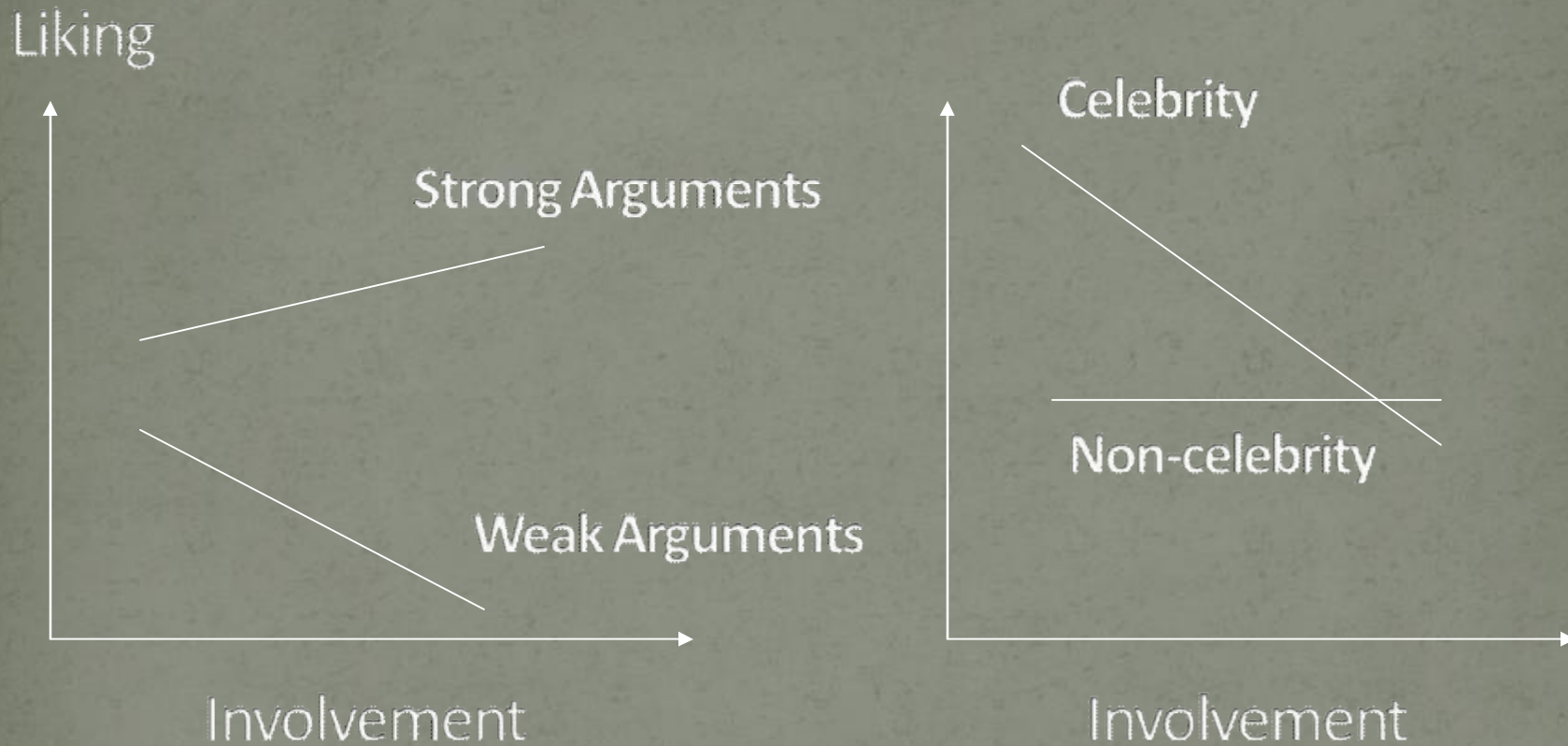
# Modern Persuasion Theories

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- Although they make many nuanced predictions (see workshop paper), they converge on certain key points.

# The **Effortful** vs. Non-Effortful Trade-Off

- The merits of the information presented move attitudes only when people expend considerable effort processing it.
  - When motivation and ability are **high**: Argument content matters a great deal.
- Incidental aspects that envelope the message move attitudes only when people are thinking in a relatively shallow fashion.
  - When motivation and ability are **low**: Peripheral or heuristic cues matter a great deal.

# Motivation to Process (Involvement)



**Source:** Petty, Cacioppo, & Schumann (1983, *JCR*)

# Conditions on Media Effects:

## Biases in Processing Information

- Some important anchors against discrepant information (Johnson, Maio, & Smith-McLallen, 2005):
  - Strong attitudes or habits
  - Skepticism
  - Linkages in peer groups whose attitudes or behavior actually or apparently oppose the information.
- These effects clearly should depend on developmental stage.

# Media Effects *Ought* to Hinge on Developmental Stage—Summary

Pre-adolescent children	Early to middle adolescents	Late adolescents
<p><b>Yet, to date these predictions generally lack empirical verification.</b></p>		

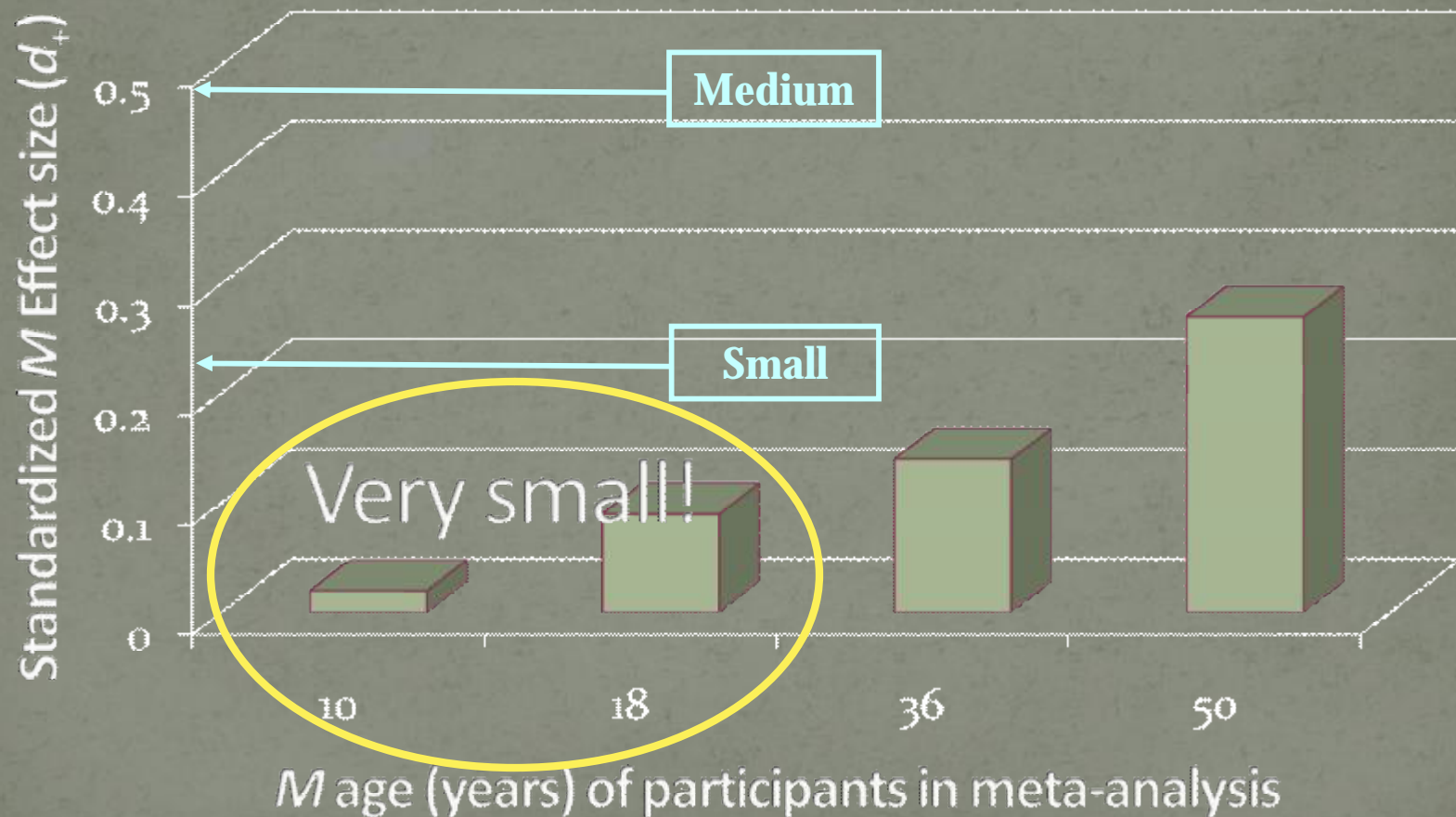
## How Much Can Interventions Improve Adolescent Health? Health Promotion Interventions' Effects on Behaviors

Behavior	<i>k</i> of studies	<i>M</i> age of sample	<i>d</i> <sub>+</sub>
Abstinence (Silva, 2002)	12	14	0.044
Pregnancy rates (DiCenso, 1995)	30	14.79	0.050
Pregnancy rates, sexual behavior, birth control use (Guyatt et al., 2000)	30	14.82	-0.027
Condom use (Johnson et al., 2003)	42	15	0.073
Frequency of sexual encounters (Johnson et al., 2003)	38	15.1	0.049
Unprotected intercourse (Mullen et al., 2002)	13	15.46	0.19
Number of sexual partners (Mullen et al., 2002)	8	15.75	0.29

*Note.* Mean effect sizes (*d*<sub>+</sub>) are positive for differences that favor health promotion in the treatment group (usually relative to a control group) and are expressed as the standardized mean difference effect size. Two meta-analyses having only 2 studies are omitted.

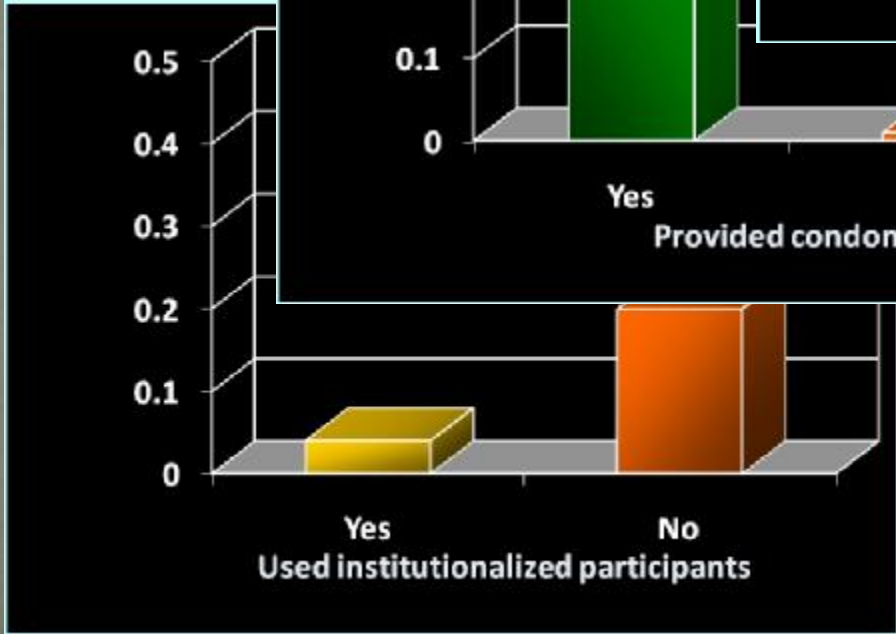
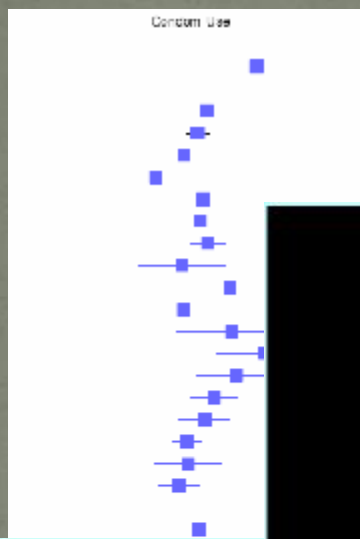
Source: Johnson, Scott-Sheldon, & Carey (in press, *AJPH*)

# Age in Meta-Analyses of Health Promotion Literatures



Source: Johnson, Scott-Sheldon, & Carey (in press, *AJPH*)

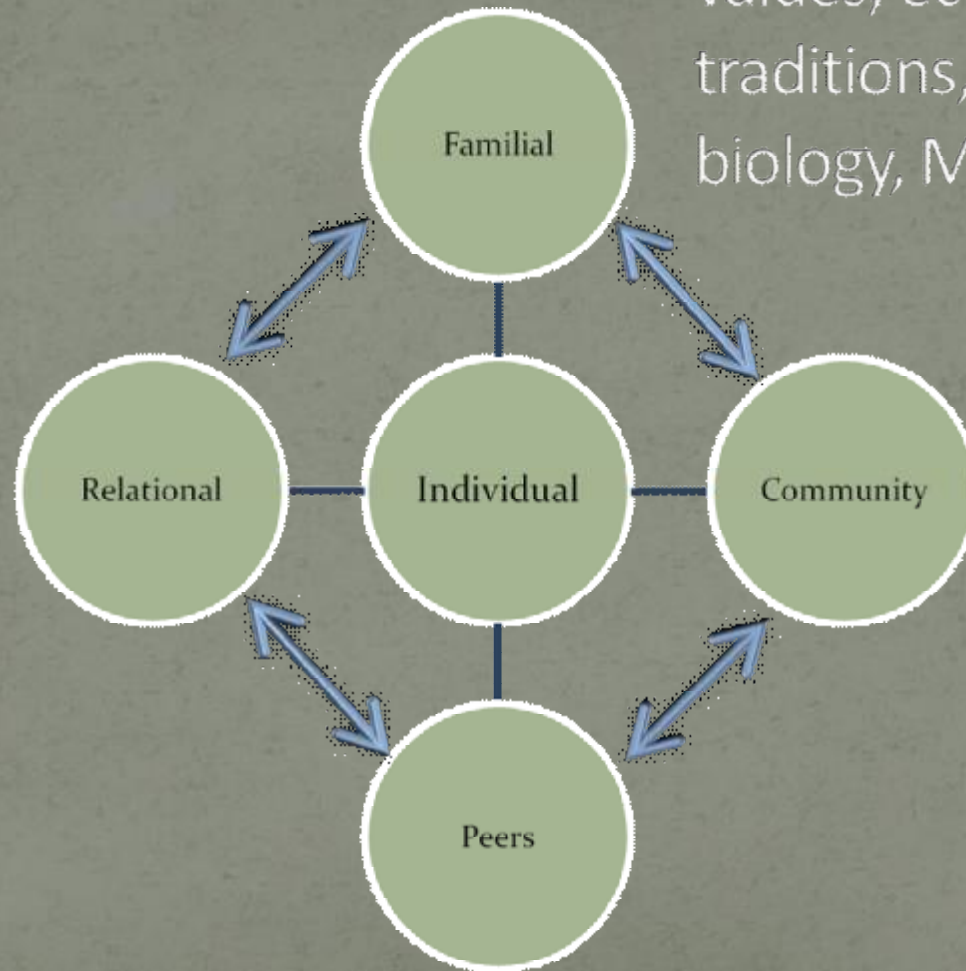
# Sexual risk reduction against HIV—Condom use



Source: Johnson et al., 2003, *Archives of Pediatrics & Adolescent Medicine*, 157, 381-388.

# What else is missing?

Society, culture,  
values, economics,  
traditions, mores,  
biology, MEDIA



**Table II.** Ecological Factors Associated with STD Risk Behaviors Among Detained Female Adolescents

Independent variable	Beta
Microsystem	
Risk-taking attitudes	.15*
Mood/Behavioral disorders	.09
Substance use	.29***
Mesosystem	
Parental monitoring	-.21**
Familial support	-.17**
Risky peer norms	.17*
School/Teacher connectedness	-.12*
Macrosystem	
Gender roles/Male dominance	.14*
Community violence	.05
Media influences	.03

\*\*\* $p < .001$ , \*\*  $p < .01$ , \* $p < .05$ .

Source: Voisin, DiClemente et al. (2006). *Social Work*.

# Social affordances to risk behavior

- Neighborhood risk appears to moderate the link between willingness to engage in risk behavior and the behavior itself:
  - the willingness-behavior link is much stronger in **high-risk** than low-risk **neighborhoods** (e.g., Gibbons et al., 2004).
- Desirability of the image (e.g., a smoker, substance user, someone who does not abstain) appears to drive willingness effects, especially for adolescents.

## Media-dense environments

“Tobacco companies spend \$20 to market tobacco products for every one dollar the states spend to fight tobacco use. According to the latest data from the Federal Trade Commission, tobacco companies spend \$12.8 billion a year on marketing.”

*tobaccofreekids.org*

## Resource-rich campaigns **can** succeed (even against strong competition)

- Large 1998 Florida campaign: 29,000 fewer smokers
- It may prevent adolescents from smoking debut.
- It may affect young people who do take up smoking by making them more conscious of how often and how much they smoke.



Source: Sly et al., 2001, AJP.

# Conclusions

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# Fin

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