

Demonstrative 6: Empirical Studies on the Impact of Cigarette Advertising on Adolescents

U.S. Exhibit 17,560

Study	Population/ Setting	Independent Variables	Dependent Variables	Outcome
1. Aitken, Leathar, & O'Hagan, 1987 (U.S. Exhibit 77,281)	726 Glasgow children between 6 and 17	Ads for nine brands of cigarettes with identifying information removed	Identification of brand, matching ad to smoker image.	By ten years old, students were able to match brands to thumbnail sketches of the smoker of that brand at better than chance levels.
2. Arnett & Terhanian, 1998 (U.S. Exhibit 72,842)	534 adolescents in grades 6 through 12 from seven schools in four states.	Presentation of ads for five brands of cigarette: Camel, Marlboro, Kool, Benson & Hedges, and Lucky Strike.	Ratings of cigarette ads for five brands on how frequently seen, liking, and degree to which ads made smoking appealing.	Marlboro and Camel more frequently seen. They were liked by the larger proportions of subjects (Liking: 44% for Marlboro, 64% for Camel) than were the other ads. And, they were more appealing than ads for other cigarettes. However, none of these comparisons included statistical analysis.
3. Arnett, 2001	400 12 to 17 year olds.	Presented two ads for each of five youth popular brands (Marlboro, Newport, Camel, Kool, & Winston) and one ad for non-youth brand (Merit)	Ratings obtained on "Liking for ads and how much ad makes smoking appealing	All but two of the ads for the youth-targeting brands were liked significantly more than the Merit ad was liked. One Marlboro ad, two Camel ads, and a Kool ad were rated as making smoking significantly more appealing than was the Merit ad. The Marlboro ads were liked significantly more than the ads for Newport.
4. Unger, Johnson, & Rohrbach, 1995 (U.S. Exhibit 72,819)	386 8 th grade students	Assessed brand recognition for Cigarette, Alcohol, and other ads which had brand information removed. Ratings of liking for ads also assessed.	Smoking status: non susceptible non smokers, susceptible nonsmokers, and smokers.	Students were able to identify the brands for Camel (71.7%), Marlboro (62.5%) and Newport (31.4%) more than for Capri, Kool, Misty, and Virginia Slims. Susceptible nonsmokers liked cigarette ads significantly more than did nonsmokers and equivalently to smokers' liking for them.

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Studies Involving Experimental Manipulation of Exposure to Cigarette Marketing			
Study	Population/Setting	Experimental Design	Outcome
5. Turco, 1997 (U.S. Exhibit 73,663)	178 adolescents	Students were randomly assigned to review for five minutes either: 1) A magazine with four cigarette advertisements or 2) A magazine without four cigarette advertisements.	Adolescents who had ever tried smoking and who were exposed to cigarette ads expressed more positive attitudes toward smoking than did those who were not exposed to ads. Adolescent exposed to ads also rated a woman who was pictured smoking more positively than did adolescents who were not exposed to ads.
6. Donovan, Jancey, & Jones, 2002 (U.S. Exhibit 77,304)	100 10- through 12-year-olds	Students were randomly assigned to either 1) Exposure to a photograph of a pack of Benson & Hedges and a point of sale ad for Marlboro or 2) Exposure to a photograph of a pack of Marlboro and a point of sale ad for Benson & Hedges.	Compared to seeing the pack, looking at the poster increased positive perceptions of the brand user. In the case of Benson & Hedges the users were more likely to be described as relaxed, interesting, cool, rich, adventurous and classy by students who saw the ad rather than just the pack. Those who saw the Marlboro point of sale ad rated Marlboro smokers as more adventurous than did students who saw only the picture of the Marlboro pack.

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Studies Involving Experimental Manipulation of Exposure to Cigarette Marketing			
Study	Population/Setting	Experimental Design	Outcome
7. Pechmann & Ratneshwar, 1994 (U.S. Exhibit 72,905)	304 7 th grade students	Students were assigned at random to one of six cells of a 3 x 2 design. There were three levels of ad type (cigarette ads, antismoking ads, or ads unrelated to smoking). Students were then asked to rate a pictured student who was described either as a smoker or a nonsmoker. 1) Exposure to magazine advertisements for Newport, Virginia Slims, and Camel Or 2) Exposure to three advertisements unrelated to smoking	Students who saw cigarettes advertisements had a greater proportion of positive thoughts about smokers (e.g., “has lots of friends,” “likes to do exciting things”) than did students who saw the unrelated advertisements.
8. Henriksen, Flora, Feighery, & Fortmann, 2002	385 from 18 eighth and ninth grade students from five schools. Diverse with respect to ethnicity.	Classrooms were assigned to one of four cells of a 2 x 2 design. The first two-level factor was 1) Exposure to pictures of a convenience store containing tobacco advertising and displays or 2) Exposure to pictures of a convenience store that lacked any tobacco advertising. The second two-level factor was 1) A newspaper clipping about a tobacco policy issue or 2) A newspaper clipping about youth food purchases.	Those exposed to cigarette advertising: Perceived that cigarettes could be more easily purchased in the pictured stores. Perceived that cigarettes could be more easily purchased in other stores. Perceived a higher prevalence of adolescent smoking. Expressed less support for policies to control tobacco use. None of these variables was affected by the type of story students read.

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9. Pechmann and Knight, 2002	718 ninth graders from four California high schools. They were diverse in ethnicity.	<p>Students were individually assigned at random to one of eight 12-minute videotapes about teens, using a 4 x 2 design.</p> <p>The tapes differed in ads they contained. There were four levels of the Ad condition:</p> <ol style="list-style-type: none"> 1) Four cigarette ads 2) Four anti-smoking ads 3) Four cigarette ads and one anti-smoking ad 4) Four control ads not involving smoking. <p>The tapes also varied in that they either:</p> <ol style="list-style-type: none"> 1) Showed teens smoking 2) Showed nonsmoking teens. <p>The videotapes did not make the ads conspicuous, according to the authors.</p>	<p>Students exposed to cigarette ads had significantly more positive beliefs about smokers.</p> <p>Students who both saw cigarette ads and adolescents who were smoking had significantly more positive beliefs about smokers as well as more positive intentions to smoke in the future.</p> <p>The impact of exposure to cigarette ads and smoking adolescents on intentions to smoke was mediated by its effect on their beliefs about smokers.</p> <p>Those who saw the cigarette ads and the adolescent smokers remembered the cigarette ads significantly more than those who did not see the adolescent smokers.</p> <p>The impact of the exposure to the ads and smoking adolescents on beliefs and intentions was significant even when the student didn't recall seeing the ads.</p> <p>There were no differences in these effects depending on whether the student was or was not susceptible to smoking.</p>

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References in Above Table

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4. Unger, J. B., Johnson, C. A., & Rohrbach, L. A. (1995). Recognition and liking of tobacco and alcohol advertisements among adolescent. *Preventive Medicine*, 24, 461-466. (U.S. Exhibit 72,819)
5. Turco, R.M. (1997). Effects of exposure to cigarette advertisements on adolescents' attitudes toward smoking. *Journal of Applied Social Psychology*, 27(13), 1115-1130. (U.S. Exhibit 73,663)
6. Donovan, R.J., Jancey, J., & Jones, S. (2002). Tobacco point of sale advertising increases positive brand user imagery. *Tobacco Control*, 11(3), 191-194. (U.S. Exhibit 77, 304)
7. Pechmann, C. & Ratneshwar, S. (1994). The effects of antismoking and cigarette advertising on young adolescents' perceptions of peers who smoke. *Journal of Consumer Research*, 21, 236-251. (U.S. Exhibit 72,905)
8. Henriksen, L. Flora, J. A., Feighery, E.C. & Fortmann, S. P. (2002). Effects on Youth Exposure to Retail Tobacco Advertising, *Journal of Applied Social Psychology*, 2002, 32, 9, pp 1771-1789.
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