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Cigarette warnings with emotional images deter smoking a month after exposure

PHILADELPHIA – Few studies have looked at the effects over time of the new cigarette-pack text warnings mandated by Congress and the emotionally charged images accompanying them that were proposed by the Food and Drug Administration.

But [a new study](#) in the *Annals of Behavioral Medicine* found that a month after a trial in which smokers had daily exposure to the picture warning labels and new text, their smoking levels had declined. During the trial, smokers who were exposed to the pictorial warnings reported feeling worse about their habit – and that predicted a greater decline in their smoking a month later than that of smokers who got the text-only warning labels.

“Our study shows that the pictorial warnings proposed by the FDA can be effective even for smokers heavily addicted to their habit,” said [Dan Romer](#), the study’s lead author and research director of the [Annenberg Public Policy Center](#) of the University of Pennsylvania.

The study of the proposed labels was based on 244 adult smokers in Philadelphia, Pa., and Columbus, Ohio. The smokers completed a four-week trial in which they were given their usual brand of cigarettes with new warning labels. Of the group, 174 smokers were reached for the follow-up a month later. The researchers tested three versions of the warnings: one with the new text only and two with the proposed images in addition to the new text.

Smokers found the images, such as a cancerous lung and a smoker with a tracheotomy, to be upsetting, and reported that the images adversely affected their views on smoking and decreased their satisfaction with smoking. During the trial, smokers did not reduce their smoking to a great degree, perhaps because they were receiving free cigarettes, the researchers said. But one month later, after the smokers had resumed buying their own cigarettes, they reported smoking less the more upset they had been during the trial.

Even smokers who reported feeling unable to quit reduced their use of cigarettes a month later, the study found. This finding was important because some other researchers have suggested that scary images on cigarette warnings might lead such smokers to rebel and to actually smoke more as a result.

Past research has found that the new warnings proposed by FDA were more effective than the four current warnings on the side of cigarette packs. But that research had not separated the effect of the proposed images from the new text. Smokers exposed to the new text alone also reduced their smoking a month later, the current study found, suggesting that the information in those messages also might help smokers to better recognize the harms of smoking.

The new warnings, mandated by Congress in 2009, have been on hold since a court ruling in 2012. In a suit brought by the tobacco industry, the U.S. Court of Appeals for the District of Columbia concluded that the images were “unabashed attempts to evoke emotion (and perhaps embarrassment) and browbeat consumers into quitting.” The FDA has not proposed new warnings since then.

The current study confirms earlier findings that the emotions evoked by the images serve to accentuate the impact of the text. In fact, by 2014 more than 70 countries had adopted graphic or pictorial warning labels. The images selected by FDA are mild in comparison with some of them – and yet the emotion they elicited had an impact that lasted for at least 30 days beyond the period of daily exposure.

The study’s findings suggest that contrary to the court ruling, the use of scary images has a public health benefit.

“It accentuates the risk, and makes smokers feel more vulnerable about the hazards,” Romer said. “That emotion motivates reduced smoking. When smokers see these warnings, they get less satisfaction from smoking. It has a visceral effect.”

In addition to Romer, researchers on the study include Andrew Strasser at the University of Pennsylvania; Stuart G. Ferguson at the University of Tasmania, Australia; and a team led by Ellen Peters in the Department of Psychology at The Ohio State University.

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