

Research summary

To assess the degree to which graphic warning labels can communicate risk about reduced-risk tobacco products, researchers at the University of Minnesota evaluated the effect of graphic warning labels on ratings of advertisements for three different tobacco products, including a reduced-exposure cigarette.

Results and policy implications

Participants who viewed the ads with graphic illustrations on the warning label were less likely to find the ads appealing and were less likely to express interest in purchasing the product. In light of these findings, policymakers may wish to consider including graphics in reduced-exposure products' warning labels to ensure balanced presentation of information.

About umntturcresearchbrief

The UMN TTURC Research Brief presents timely information on emerging tobacco research from the University of Minnesota. The aims of UMN TTURC are to examine strategies for reducing tobacco toxin exposure, determine the most effective methods for treating smokers who are unable or unwilling to quit smoking, and outline public policy implications for interventions that reduce exposure to tobacco toxins.

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Do graphic warning labels change consumer perceptions about reduced-exposure products?

Warning labels on tobacco product packaging and in tobacco advertisements are an important tool for informing people about the risks of using tobacco. Many researchers have explored ways that these messages can be more captivating. One effective approach has been to incorporate a graphic to illustrate the harm tobacco poses. Since 2000, for example, Canada has been using cigarette packaging warning labels that include full-color graphics of a diseased lung or heart along with written statements about the dangers of smoking. Research has shown that using such a graphic increases the likelihood that smokers will notice the label and use it as a source of information about the health risks of smoking.^(1,2)

To date, no research has focused on the effects of using graphic warning labels to communicate the risk of reduced-exposure products. To address this gap, researchers at the University of Minnesota, with pilot study funds from the Transdisciplinary Tobacco Use Research Center, evaluated the effect of graphic warning labels on ratings of advertisements for three different types of nicotine-containing products, including those of the reduced-exposure variety. The team predicted that including a picture in the warning label would make the

product seem less appealing for college-aged smokers and nonsmokers.

Methods

The study group comprised 92 undergraduate students of a large Midwestern university, including 24 smokers. Participants viewed three advertisements for tobacco and nicotine products: one for an oral tobacco product, one for a nicotine lozenge, and one for a reduced-exposure cigarette. All of the ads included language from the original ads; only the names of the products were changed. Half of the participants viewed the ads with the standard Surgeon General's warning against tobacco use, and half viewed the ads with the Surgeon General's warning accompanied by a graphic. The text of the warning label read, "This product may contain harmful byproducts and is not a safe alternative to regular cigarettes. Quitting smoking now greatly reduces risks to your health." The graphic and warning labels were inaccurate for the nicotine lozenge; however, their effects on a medicinal and safer product were of interest.

Within these two groups of viewers, half of the participants viewed the warning label at standard size (10% of advertisement space) while half viewed a larger label (25% of the space). Thus, the study involved three

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distinct variables—2 (graphic picture present v. absent) x 2 (large label v. small label) x 3 (lozenges, cigarettes, or oral tobacco)—making the study design mixed-factorial.

After viewing each ad for as long as they wished, participants answered open-ended questions about their impressions about the ad. They also rated the ad's appeal, the product's overall appeal, their interest in trying the product, their intention to buy the product, their opinion on the safety of the product, and their trust in the health claims made in the ad.

Findings

Findings of the study demonstrated that size of the label did not affect viewers' ratings of the ads. As a variable, label size did not interact with the presence of the graphic or the type of product.

For all questions asked, including a graphic on the warning label did change how participants responded to the ad assigned to them. Specifically, participants who viewed ads that included a graphic in the warning label:

- regarded the ad and product as less appealing
- were less interested in trying the product
- were marginally less interested in buying the product
- rated the ad as less trustworthy
- rated the product as less safe

Of the three types of products, the nicotine lozenge was viewed as most appealing, both for the ad and the product itself. Participants were more interested in trying it and potentially buying it, its ad were regarded as the most trustworthy of the three viewed, and it was the product perceived to be most safe.

These reactions occurred with the nicotine lozenge in spite of the false warning labels or graphic that appeared in the ad. It is possible that study participants' prior knowledge of medicinal products trumped the information on the warning labels and graphics.

Smoking status seemed to affect responses in only two ways. Smokers were more interested in (a) trying the product and (b) buying the product than nonsmokers. However, participants were designated as smokers if

they had smoked in the last 30 days, which may not indicate that they are heavy smokers. Because many participants may have been light or social smokers, smoking status may not have been strongly related to their response to the advertisements and warnings.

Discussion

Including a graphic illustration in an ad for a tobacco product not only affects appeal of the product and its ad, but it also affects perceptions of claims that the ad contains. Individuals who viewed ads with a graphic in the warning label regard both the ad and the product to be less appealing, less trustworthy, and less safe and are less interested in trying or purchasing the product. Graphic illustrations can also increase participants' memory of labels, which in turn can reduce ratings of product safety.

Policy implications

The fact that reduced-exposure products were included in this study make the findings especially noteworthy. Ads for reduced-exposure products make direct or implied claims of decreased risk which are not necessarily scientifically based. Incorporating a graphic illustration in a warning label seems to be an effective way to increase consumers' awareness of product safety concerns. Because claims have not been regulated for reduced-exposure products, policy-makers should consider mandating the inclusion of graphic pictures within these products' warning labels to ensure that the consumer receives balanced information about them.

References

1. Hammond D, Fong GT, McDonald PW, et al. Graphic Canadian cigarette warning labels and adverse outcomes: evidence from Canadian smokers. *American Journal of Public Health* 2004;94:1442-45.
2. Hammond D, Fong GT, McDonald PW, et al. Showing leads to doing: graphic cigarette warning labels are an effective public health policy. *European Journal of Public Health* 2006;16:223-4.

For more information about this research brief, please see Stark E, Kim A, Miller C, and Borgida E. Effects of including a graphic warning label in advertisements for reduced-exposure products: implications for persuasion and policy. Journal of Applied Social Psychology 2008;38(2):281-93.