

Fear and Humor Appeals in “The Real Cost” Campaign: Evidence of Potential Effectiveness in Message Pretesting



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Introduction: In tobacco prevention campaigns, fear-appeal messages are widely used and generally shown to be effective, whereas the utility of humor appeals is less clear. This study compares the potential effectiveness of fear and humor ads developed for “The Real Cost” campaign.

Methods: Adolescents (N=1,315) aged 13–17 years who were either experimenting with smoking or susceptible to smoking initiation were randomized to view either a single ad (of three fear and two humor ads in total) or nothing (control condition). Those in the ad viewing condition completed measures on fear, amusement, and perceived ad effectiveness. All participants completed measures on smoking attitudes and risk perceptions. Data were collected in 2014 and 2015. Analysis was performed in 2016.

Results: Compared with control, both fear and humor ads produced greater risk perceptions ($p<0.001$). Fear ads also produced more negative smoking attitudes ($p=0.001$); humor ads had a similar effect on attitudes that approached significance ($p=0.07$). Fear ads scored higher on perceived ad effectiveness and fear, and lower on amusement than humor ads ($p<0.001$). In regression models, fear was a stronger predictor of perceived ad effectiveness, smoking attitudes, and risk perceptions than amusement for fear ads, whereas amusement was a stronger predictor of these outcomes than fear for humor ads.

Conclusions: Both fear and humor appeals have potential to be effective in “The Real Cost” campaign. Concurrent employment of these message strategies should help to diversify messaging and consistently recapture the target audience’s attention.

Supplement information: This article is part of a supplement entitled Fifth Anniversary Retrospective of “The Real Cost,” the Food and Drug Administration’s Historic Youth Smoking Prevention Media Campaign, which is sponsored by the U.S. Food and Drug Administration.

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INTRODUCTION

There is good evidence that mass media campaigns are effective at preventing youth from smoking initiation.^{1–5} Research on message strategies in such campaigns has generally supported the utility of messages that induce strong negative emotions, such as fear^{3,5–7}; but the efficacy of positive emotional appeals, such as humorous messages, is not clear. Additionally, the role of targeted emotions in the effects of emotional appeals has received insufficient attention in past tobacco prevention research. This study attempts to

fill these gaps by assessing youth responses to fear and humor appeals in advertising produced by the U.S. Food

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and Drug Administration for its national youth smoking prevention media campaign, “The Real Cost.”

Research on fear appeals shows that, under the right conditions, fear can be leveraged to motivate behavior change.^{8–10} A number of theories have emerged to address how and why fear appeals work, and also why they may fail. The extended parallel process model, for example, posits that the effect of fear appeals is jointly determined by message-induced perceptions of threat and efficacy.¹¹ Without an adequate sense of response- and self-efficacy, perceived threat and experienced fear may lead to defensive reactions, such as psychological reactance,^{12–14} rather than message acceptance and desirable behavior change.^{10,11} Early fear appeal theory also proposes an inverted U-relationship between fear and persuasion, where either lower or higher than optimal levels of fear would decrease message agreement.^{15,16} Although empirical research has not found clear support for the curvilinear relationship in between-subjects designs,^{10,17} recent studies show that an inverted-U relationship does exist in within-subjects analysis when fear is measured at multiple time points during message processing.^{18–20} Despite these intricacies, research on tobacco prevention campaigns has generally supported the utility of fear appeals.^{3,5–7} In a cross-national study, for example, youth from the U.S., Australia, and Britain all rated tobacco prevention ads with visceral negative execution styles more favorably than other types of messages. These ads were also more likely to be recalled, thought about, and discussed 1 week later.⁷

In comparison with fear appeals, humor appeals have received less attention in health and risk communication, although interest in their application and effects in other contexts, particularly commercial advertising, has persisted over the years.²¹ Research on humor appeals is often guided by broad persuasion and information processing theories, such as the elaboration likelihood model.²² The general view is that humor tends to have the most impact through the peripheral route of persuasion, where information processing relies primarily on simple message cues and mental heuristics, such as source liking and trust in experts, instead of careful examination of the substance of the message.²³ The effects of humor on persuasion are rather nuanced. A recent meta-analysis shows that the use of humor is associated with increased attention, greater ad liking, more positive affect and less negative affect, more favorable attitude toward the brand, and greater purchase intention. At the same time, the analysis also shows that humor is not associated with actual purchase behavior and negatively associated with source credibility.²¹ Some of these findings have been noted in health and risk

communication research, in particular humor’s ability to increase interest in and reduce counterarguing of otherwise threatening health messages.^{24,25}

Only a few studies have directly compared fear and humor appeals in the context of tobacco education. Existing evidence shows that youth and adults alike tend to rate fear appeal messages as more effective than humorous messages.^{6,26,27} However, relevant evidence on the effects of fear versus humor appeals on smoking-related outcomes is largely lacking. Additional research has examined executional characteristics of campaign messages using broader categories, such as negative versus positive emotion messages, or threatening versus non-threatening messages. This body of research generally finds negative emotion messages, including fear appeals, to hold advantages in audience appraisal,⁷ message engagement,²⁸ recall,²⁸ and general audience preference²⁹ in comparison with humor and other types of appeals. Greater clarity in the mental connection between fear and the target health issue,²⁹ as well as stronger emotional intensity,²⁸ have sometimes been cited as reasons for the better performance of fear appeals in these studies.

It is important to note that the relative advantages of fear appeals do not preclude the possibility that humor appeals can still favorably change beliefs, attitudes, and behaviors. Although less prevalent than fear appeals, humor appeals do appear with some regularity in tobacco prevention campaigns.³ Recent research on smoking prevention videos on YouTube also found both humor and fear appeals to be viewed more often than social appeals.³⁰ Positive evidence of the effects of humor appeals on smoking-related outcomes in comparison with a condition with no message exposure will support the deployment of humorous messages in tobacco prevention efforts as part of a diversified messaging system. This is particularly important given the cluttered media environment youth live in today. If multiple message strategies are available to produce the desired campaign effects, it would generally benefit the campaign to diversify its message approach in order to consistently recapture the attention of at-risk youth.

As a national youth smoking prevention media campaign, “The Real Cost” has used both fear and humor appeals in its campaign messages. It is important to note that “The Real Cost” does not use fear appeals to merely shock viewers or to induce extreme fear. The fear-based elements in its messages (e.g., a horde of monsters, a scary-looking creature) represent the dangers of smoking generally and are meant to grab teens’ attention and engage them in content aligned with their media consumption habits. This approach, with its focus on inducing moderate fear, is consistent with the idea of an

inverted-U relationship between fear and persuasion noted by both early theory^{15,16} and recent reexamination of the issue.^{31,32}

Evaluation research so far has shown the campaign to be effective at reaching the targeted youth population,³³ changing campaign-targeted beliefs,³⁴ and preventing youth smoking initiation.³⁵ Although these findings attest to the overall effectiveness of the campaign, they do not speak to the relative efficacy of the different appeals used in campaign messaging. This study addresses this latter question by using data from “The Real Cost” copy testing research to directly compare fear and humor appeals on both perceived ad effectiveness and smoking-related attitudes and risk perceptions.

The ability of attitudes and risk perceptions to predict behavior is a central proposition of several influential behavior theories^{36,37} and is well documented by empirical evidence.^{38–40} Research has also shown that perceived ad effectiveness is causally antecedent to post-message attitude and intention across different contexts, thus a useful barometer for formative campaign research.^{41,42} In particular, the specific measure of perceived ad effectiveness used in this study has been shown to prospectively predict smoking intentions in an experimental study⁴³ and quitting behaviors in a longitudinal evaluation of a national smoking-cessation campaign.⁴⁴ Together, this body of evidence suggests that perceived ad effectiveness, risk perceptions, and attitude constitute an appropriate group of outcome variables for this research. Additionally, this study also measures message-targeted emotions (fear versus amusement) in order to assess their relative contributions to the effects of the two types of message appeals under investigation. Limited by the scope of copy testing research, this study is not equipped to test theory about either appeal in a systematic manner. However, the authors hope that the evidence generated here will be able to inform thinking about how fear and humor appeals work and stimulate future theory-guided research.

METHODS

The development of ads for “The Real Cost” is guided by extensive, iterative research with the youth target audience using both qualitative (focus groups) and quantitative (copy testing) methods. Final campaign advertising reflects deliberate decisions on both message content and executional styles. A detailed description of the process is beyond the scope of this paper, but additional information is provided in other articles in this supplement and in campaign-related literature published elsewhere.^{33,45} This study reports data from two recent copy testing experiments that have included distinct fear- and humor-appeal ads. The primary purpose of copy testing research was to assess the potential effectiveness of individual ads. The current study represents a

secondary analysis addressing additional research questions using pooled data from these experiments.

Using the same design and instrumentation, both experiments were conducted online using participants’ own computers or mobile devices. After answering a brief questionnaire on their personal background and smoking experience, youth participants were randomized to either an ad-exposure condition or a no-exposure control condition. Those in the exposure condition were shown a single ad randomly selected from a set, followed by a series of questions assessing their thoughts and feelings in response to the ad. Those in the control condition did not view anything. All participants then filled out an outcome questionnaire that included measures of smoking-related beliefs and attitudes. The entire testing process took about 15 minutes. Participants received \$20 as a compensation for their time. The study protocol was approved by the U.S. Food and Drug Administration IRB. Data collection for the two experiments was completed in 2014 and 2015, respectively. Analysis for the current study was performed in 2016.

Study Sample

The study sample (N=1,315) included two specific at-risk youth groups aged 13–17 years: those who have experimented with smoking but have not yet smoked ≥ 100 cigarettes in their lifetime (experimenters); and those who have never smoked cigarettes but are susceptible to initiation (susceptible nonsmokers). Youth were recruited via mall intercept at various locations across the country. Parents were given 72 hours to opt their children out of the study and youth assent was obtained prior to participation. Recruitment was regulated such that roughly equal numbers of experimenters and susceptible nonsmokers would be included in each experiment.

Fear and Humor Appeal Ads

At the time of data collection, “The Real Cost” had produced 13 TV ads featuring different themes and execution styles.⁴⁵ This study focuses on two groups of ads that were expressly designed to elicit feelings of fear and amusement, respectively. Brief descriptions of these ads are provided in [Appendix Figure 1](#) (available online). Other ads used in the campaign are excluded from the current analysis either because they are not explicitly and exclusively fear-based or humorous in nature or because they were shown together with other ads during copy testing, making it difficult to ascertain their independent effects. For example, the first copy testing study for “The Real Cost” included two ads, *Tooth* and *Skin*, that were clearly fear appeals.³⁸ However, this study exposed each participant to two randomly selected ads from a set of six that also included ads featuring other appeals. The outcome measures were taken after exposure to both ads, thus reflecting their joint influence. This design precluded clear attribution of observed effects to individual ads. *Tooth* and *Skin* are therefore not included in the current analysis.

Measures

Smoking status was ascertained by asking (1) *whether the participants had ever smoked cigarettes*; and, if *yes*, (2) *whether they had smoked 100 cigarettes in their lifetime*. Nonsmokers are those answering *no* to the first question; experimenters are those answering *yes* to the first question but *no* to the second question.

Susceptible nonsmokers were identified using a three-item measure of smoking susceptibility developed by Pierce and colleagues.⁴⁶

Participant reactions to the ad they viewed were obtained using a perceived ad effectiveness measure and a set of emotion-based items. On a 5-point Likert-type scale (1 *strongly disagree* to 5 *strongly agree*), perceived ad effectiveness was assessed using six items: *The ad is* (1) *powerful*, (2) *informative*, (3) *meaningful*, (4) *convincing*, (5) *worth remembering*, and (6) *The ad grabbed my attention*.⁴³ Participants were also asked to indicate on a 5-point scale (1 *not at all* to 5 *very*) *how much the ad made them feel afraid, worried, uneasy, happy, and amused*. The first three items were averaged into an index of fear, and the last two items were averaged into an index of amusement. These items and the associated rating scale were adapted from previous research^{47,48} and simplified for use with the youth sample.

The primary outcome measures in this study were risk perceptions and smoking attitudes. Five items assessed perceptions of health risks associated with cigarette smoking that are addressed by campaign messages: *If I smoke cigarettes, I will* (1) *damage my body*, (2) *inhale poisons*, (3) *develop cancer*, (4) *damage my lungs*, and (5) *shorten my life*. Participants rated their agreement with each item on a 5-point scale (1 *strongly disagree* to 5 *strongly agree*). Ratings were averaged across the items to generate an overall measure of health risk perception. Smoking attitudes were measured with two items adapted from previous behavioral

research: *Smoking cigarettes is bad/unenjoyable or good/enjoyable*. Responses ranged from 1 *very bad/unenjoyable* to 5 *very good/enjoyable*.³⁶ An overall attitude score was constructed by averaging these two items.

Additional variables used in the study included demographic backgrounds, smoking experience, peer smoking, and living with smokers. These measures are summarized in [Table 1](#).

Statistical Analysis

Chi-square tests assessed equivalence of experimental conditions on sample characteristics. A series of ANCOVA was conducted to compare the three experimental conditions (fear ads, humor ads, and control) on risk perceptions and smoking attitudes. An additional set of ANCOVA was conducted to compare the two types of messages (fear and humor) in terms of perceived ad effectiveness and emotional response. Finally, separate regression analyses were run for participants exposed to fear versus humor ads to see how strongly the targeted emotions were associated with perceived ad effectiveness, risk perceptions, and smoking attitudes. All analyses controlled for demographics, smoking experience, peer smoking, living with smokers, and study wave. The statistical package used was SPSS, version 24.

RESULTS

Sample characteristics for this study are summarized in [Table 1](#). Experimental conditions did not differ on most characteristics ($p>0.42$). The only difference was found in race and ethnicity ($p=0.01$). Those assigned to the humor ads condition were more likely to be white (55.3% vs 45% [control] and 44.8% [fear ads]) and less likely to be Hispanic (22.8% vs 34% and 31.9%) compared with the control and fear ads conditions respectively. This difference was controlled for in subsequent ANCOVA and regression analyses.

Average scores of perceived ad effectiveness, feelings of fear and amusement for each of the five ads, as well as for each ad type, are presented in [Table 2](#).

ANCOVA revealed a significant main effect of experimental condition (control versus fear versus humor) on smoking attitudes, $F(2, 1297)=6.248$, $p=0.002$, $\eta_p^2=0.010$. Post hoc comparison showed that exposure to fear messages produced significantly more negative attitudes toward smoking compared with the control condition, $p=0.001$, $d=0.24$. Exposure to humor ads did not produce a significant effect, $p=0.070$, $d=0.15$, although the direction of the observed shifts in smoking attitudes also trended more negative. The difference between fear and humor appeals was not significant, $p=0.214$, $d=0.09$ ([Table 3](#)).

Similar patterns were observed with risk perceptions. A significant main effect of experimental condition was obtained, $F(2, 1295)=8.847$, $p<0.001$, $\eta_p^2=0.013$. Exposure to both fear and humor ads led to greater risk perceptions compared with the control

Table 1. Sample Characteristics (N=1,315)

Variable	n (%)
Age, years	
13	211 (16.0)
14	204 (15.5)
15	304 (23.1)
16	350 (26.6)
17	246 (18.7)
Gender	
Male	653 (49.7)
Female	660 (50.3)
Race/ethnicity	
White	637 (48.4)
Black	204 (15.5)
Hispanic	393 (29.9)
Other	88 (6.7)
Status	
Experimenter	655 (49.8)
At-risk nonsmoker	660 (50.2)
Living with smokers	
Yes	695 (52.9)
No	620 (47.1)
Close friends smoking	
0	395 (30.0)
1	313 (23.8)
2	367 (27.9)
3	134 (10.2)
4	101 (7.7)

Table 2. Perceived Ad Effectiveness, Feelings of Fear and Amusement in Response to Test Ads

Ad	Perceived ad effectiveness, ^a M (SD) / α	Fear, ^b M (SD) / α	Amusement, ^b M (SD) / r
Fear			
7000	3.86 (0.83) / 0.89	2.77 (1.13) / 0.70	2.48 (1.16) / 0.39
Found It	3.83 (0.81) / 0.89	3.14 (1.08) / 0.68	2.23 (0.97) / 0.20
Science Class	3.87 (0.81) / 0.90	2.99 (1.10) / 0.71	2.56 (1.18) / 0.40
Total	3.85 (0.82) / 0.90	2.96 (1.11) / 0.70	2.46 (1.11) / 0.34
Humor			
Skinny Jeans	3.55 (0.89) / 0.91	2.17 (1.08) / 0.80	3.07 (1.10) / 0.39
Fingers	3.56 (0.90) / 0.89	2.08 (1.11) / 0.79	3.23 (1.22) / 0.61
Total	3.56 (0.90) / 0.91	2.12 (1.09) / 0.79	3.15 (1.16) / 0.50

^aMeasured on a 5-point scale from 1=strongly disagree to 5=strongly agree.

^bMeasured on a 5-point scale from 1=not at all to 5=very.

condition. Both differences were statistically significant in post hoc comparison: $p < 0.001$ and $d = 0.28$ for fear ads, $p = 0.005$ and $d = 0.23$ for humor ads. The difference between fear and humor ads was not significant, $p = 0.479$, $d = 0.05$ (Table 3).

ANCOVAs on ad responses showed significant differences between fear and humor ads on all three outcome measures: perceived ad effectiveness, $F(1, 906) = 21.78$, $p < 0.001$, $\eta_p^2 = 0.023$; fear, $F(1, 897) = 128.78$, $p < 0.001$, $\eta_p^2 = 0.126$; and amusement, $F(1, 890) = 67.02$, $p < 0.001$, $\eta_p^2 = 0.070$. Fear ads generated significantly higher scores on perceived ad effectiveness and fear, and significantly lower scores on amusement, as compared with humor ads (Table 3).

Among those exposed to the fear ads, fear was a significant predictor of risk perceptions and smoking attitudes (both $p < 0.001$), whereas amusement was not ($p > 0.05$; Table 4). Among those exposed to the humor ads, the opposite was true: Amusement significantly predicted risk perceptions and smoking attitudes (both $p < 0.05$), whereas fear did not (both $p > 0.05$). For perceived ad effectiveness, both fear and amusement

emerged as significant predictors for both groups of participants ($p < 0.05$). However, the regression coefficients again showed opposite patterns: For those exposed to fear ads, fear was a stronger predictor than amusement; for those exposed to humor ads, amusement was a stronger predictor than fear. Comparison of the coefficients revealed statistically significant differences in both cases ($p < 0.001$).

To ensure that the current results were not due to the use of specific covariates, all analyses were repeated without any covariates. The results remained essentially the same. To investigate whether the observed effects and associations were primarily driven by one or more unique ads in each appeal category, the analyses were repeated on the level of individual ads. Despite smaller sample size, all ads produced significantly higher risk perceptions ($p < 0.05$), and all ads except one (Fingers, $p = 0.24$) produced significantly more negative attitudes ($p < 0.05$) compared with the control condition. The observed differences on perceived effectiveness, fear, and amusement between fear and humor ads all persisted in pairwise comparisons ($p < 0.05$). The associations

Table 3. Effects of Fear and Humor Ads

Condition	Smoking attitudes, ^a M (SE)	Risk perceptions, ^b M (SE)	Perceived ad effectiveness, M (SE)	Feelings of fear, M (SE)	Feelings of amusement, M (SE)
Control ($n = 566$)	2.13 (0.04)	3.93 (0.04)			
Fear ads ($n = 561$)	1.93 (0.04)^c	4.16 (0.04)^c	3.86 (0.04)^e	3.00 (0.05)^e	2.45 (0.05)^e
Humor ads ($n = 393$)	2.00 (0.05)^d	4.12 (0.05)^c	3.56 (0.05)^e	2.06 (0.06)^e	3.15 (0.06)^e

Note: Boldface indicates statistical significance.

^a $r = 0.56$ between the two items.

^b $\alpha = 0.89$ for the five-item scale. All estimates adjusted for age, gender, race/ethnicity, risk status (at-risk nonsmoker versus experimenter), living with smoker, number of close friends smoking, and study wave. The two smoking attitude items correlate at $r = 0.54$ for the full sample. For the five risk perception items, $\alpha = 0.90$ for the full sample.

^cSignificantly different from control, $p \leq 0.005$.

^dMarginally significantly different from control, $p = 0.070$.

^eSignificantly different between fear and humor ads, $p < 0.001$.

Table 4. Associations Between Feelings of Fear and Amusement and Other Outcomes

Variable	Smoking attitudes, <i>B</i> (SE)	Risk perceptions, <i>B</i> (SE)	Perceived ad effectiveness, <i>B</i> (SE)
Exposed to fear ads			
Fear	−0.125 (0.03)***	0.165 (0.03)***	0.290 (0.03)***
Amusement	0.027 (0.03)	−0.041 (0.03)	0.071 (0.03)*
Adjusted <i>R</i> ²	0.14	0.09	0.18
Exposed to humor ads			
Fear	0.034 (0.04)	−0.040 (0.04)	0.157 (0.04)***
Amusement	−0.094 (0.04)*	0.151 (0.04)***	0.397 (0.04)***
Adjusted <i>R</i> ²	0.14	0.08	0.29

Note: All models controlled for age, gender, race/ethnicity, risk status (at-risk nonsmoker versus experimenter), living with smoker, number of close friends smoking, and study wave. Coefficients are unstandardized from ordinary least square regressions. Boldface indicates statistical significance (**p*<0.05; ****p*<0.001).

between ad-targeted emotions and perceived effectiveness, smoking attitudes, and risk perceptions also remained largely the same on the individual ad level.

DISCUSSION

Limited previous research has compared fear and humor appeals in the context of tobacco prevention campaigns targeting youth. Available evidence shows that messages featuring serious and frightening threats are more likely to be recalled and thought about, and are perceived to be more effective by youth respondents than humorous and other non-fear-based messages.^{6,7,28} These findings echo several reviews of the campaign literature that conclude that messages capable of inducing strong negative emotions tend to perform well among the youth population.^{3–5} Results from the current research lend some support to these observations. Among the tested “The Real Cost” messages, fear-appeal ads overall were rated as more effective than humor-appeal ads. However, when it came to smoking-related risk perceptions and attitudes, no significant difference was detected between fear- and humor-appeal ads.

The current study included a no-exposure control condition, which enabled the examination of whether fear and humor appeals could independently change beliefs and attitudes about smoking in a favorable direction. Findings in this regard are clear on one outcome and somewhat mixed on the other. Both fear and humor appeals were able to increase health risk perceptions as compared with the control condition. Fear appeals also produced more negative smoking attitudes than the control condition, but the effect of humor appeals on smoking attitudes was not significant. The mixed evidence on attitudes notwithstanding, the comparison against control in this study represents an important extension of previous literature, which has focused almost exclusively on audience evaluations of fear- versus humor-appeal

messages.^{6,26–29} Indeed, when only perceived ad effectiveness—an evaluation measure—is considered, the current findings are entirely consistent with previous research, showing fear ads to be rated as more effective than humor ads. However, the difference in perceived ad effectiveness did not translate into distinct advantages for fear ads in smoking-related outcomes. Comparisons of fear and humor ads on risk perceptions and smoking attitudes revealed no significant difference.

The seeming disconnect between perceived ad effectiveness and smoking-related outcomes is an interesting finding. One potential explanation is that perceived ad effectiveness is not an ideal measure of persuasive potential for humorous messages. Although there is good evidence for the predictive validity of the perceived ad effectiveness measure used in this study,^{43,44,49} the way it is constructed is probably best suited for capturing deep and thoughtful processing of central message arguments. Humor, on the other hand, tends to have the most impact when information processing relies on simple message cues and cognitive heuristics.^{21,23} If this is the case, then the perceived ad effectiveness measure might have missed key processes in how humor works. In other words, humor ads may well be capable of changing smoking-related cognitions, as evidenced by the current study, just not (primarily) through mechanisms captured by the measure of perceived ad effectiveness. This possibility awaits verification in future research.

Although emotional appeals are often categorized based on the discrete emotions they seek to evoke, the extent to which the target emotions actually matter in message effects is not always clear.^{11,50,51} Empirical research on humor appeals is particularly lacking in the context of youth-targeted tobacco prevention campaigns. Indeed, some available studies on youth and young adults did not even measure humor-induced subjective feelings in their appraisal of humor-based messages.^{6,27} The current study measured experienced emotions for both fear

and humor appeals and found that the target emotions played an important role in message effects. For fear-appeal ads, the feelings of fear were a strong predictor of perceived ad effectiveness, risk perceptions, and smoking attitudes. For humor-appeal ads, it was the feeling of amusement that was the primary driver of these outcomes. Overall, these findings suggest that evoking the target emotion is likely an important mechanism underlying the persuasive effects of fear- and humor-appeal messages. The clear contrast between target and non-target emotions as unveiled in this study also brings additional clarity to the relevance of message-evoked emotions in the effects of these appeals.

Findings of this study have implications for “The Real Cost” and other youth-targeted tobacco prevention campaigns. Overall, it appears that both fear and humor appeals can be useful message strategies for campaign advertising. Although fear appeals were rated higher in perceived ad effectiveness in this study, both types of messages were able to generate shifts in smoking risk perceptions congruent with campaign goals. Fear appeals also increased negative smoking attitudes, whereas the ability of humor appeals to do the same was somewhat uncertain. It should be noted again, however, that the direct comparison of fear and humor appeals showed no significant difference in smoking-related beliefs and attitudes in the current data. This lack of separation, together with the favorable effect of humor ads on risk perceptions, should give campaign designers reasonable confidence in adding humor to the predominantly fear-based message platform in tobacco prevention communication targeting the youth population.

Future research should continue to test humor appeals’ ability to influence youth smoking attitudes. It should also look to engage theory more fully in the comparative study of fear and humor appeals. For example, recent research shows that people engage in cognitive and affective message processing differently in response to different levels of emotional intensity in fear appeals.³² The interplay between emotional intensity and cognitive versus affective processing, and its underlying psychological mechanisms, such as limited capacity,⁵² may be similarly at work for humor appeals. If so, then a common theoretic platform may become available to further compare and contrast these message appeals in youth tobacco prevention and other campaign contexts.

Limitations

Limitations of the current study should be noted. First, as mentioned earlier, the primary purpose of the experiments reported here was for advertising copy testing. As such, they were not designed to thoroughly investigate theory-driven hypotheses on the effects of fear and humor appeals.

This has limited the scope of the current study. Second, with a youth sample, many of the measures used in this research were relatively simple to reduce cognitive demand on the participants. These simple measures necessarily carry risks of potential weakness in measurement reliability and validity. The lack of a direct measure of behavior or intention also restricted the current findings. Third, as with any message testing study, demand characteristics could be a threat in the current data, biasing participant responses toward a “desired” position. Notably, however, recently published longitudinal evaluation data have shown the campaign to be effective in preventing youth smoking initiation.³⁵ Although such data do not allow the attribution of campaign effects to specific messages or appeals, they do offer strong corroborative evidence that campaign advertising as a whole has produced real-world behavioral outcomes in line with the current findings. This should serve to alleviate concerns over both demand characteristics and the lack of behavioral/intention data in the current study. Fourth, only a limited number of ads were tested for each type of appeal in the current study. The ads in each category also bore much similarity in terms of content focus and execution style. Such similarity reflects the campaign’s intention to maintain consistent message themes and creative strategies. But it also restricted the generalizability of the ads to the broader population of fear and humor ads in tobacco prevention campaigns. Confidence in the current evidence will be enhanced if similar findings are obtained in the testing of additional fear and humor ads in both “The Real Cost” and other youth-targeted campaigns.

CONCLUSIONS

Results from message pretesting for “The Real Cost” show that both fear and humor appeals have potential to be effective in the campaign. The clear pattern of relationships between emotional responses and persuasive outcomes also suggests that the expressly targeted emotions are likely a central mechanism in overall message effectiveness. Concurrent employment of fear and humor appeals appears justifiable in “The Real Cost” and other youth-targeted tobacco prevention campaigns in the interest of diversifying campaign messaging and recapturing youth attention.

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SUPPLEMENTAL MATERIAL

Supplemental materials associated with this article can be found in the online version at <https://doi.org/10.1016/j.amepre.2018.07.033>.

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