

Fear vs humor appeals: a comparative study of children's responses to anti-smoking advertisements

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Abstract

Purpose – This study aims to examine the different effects that the fear and humor appeals in anti-smoking advertisements for children have on their affective reactions to the advertisements, on their beliefs about smoking and on their behavioral intentions to smoke.

Design/methodology/approach – This paper presents the findings of a qualitative research study conducted in Italy with children aged from 8 to 11 years.

Findings – The results indicated that the humor appeal is a useful method for conveying a social theme in a pleasant way and creating a likable character that becomes an example for children to imitate; however, it is necessary to employ the fear appeal to make children reflect carefully about the negative consequences of smoking.

Research limitations/implications – This study examined only children's behavioral intentions derived from anti-smoking advertisements, but future research should also examine their real behaviors after a period following repeated viewing of public service announcements about smoking prevention or other social issues.

Practical implications – Understanding how different types of appeals can influence children represents an important result for the prevention of youth smoking and the promotion of healthy lifestyle habits during childhood.

Social implications – Understanding how different types of appeals can influence children represents an important result for the prevention of youth smoking and the promotion of healthy lifestyle habits during childhood.

Originality/value – Few studies have examined the impact of social advertisements on children, and particularly little is known about the effectiveness of fear appeals on this group.

Keywords Fear appeals, Humor appeals, Children, Anti-smoking advertisements, Public service announcements, Social advertising

Paper type Research paper

1. Introduction

Progress in adopting anti-smoking measures has led to a gradual decline in smoking rates, particularly in developed countries. Despite these measures, the number of people who smoke worldwide remains high (World Health Organization–WHO, 2015, 2019).

In the USA, nearly 42 million adults are tobacco-dependent (US Department of Health and Human Services–HHS, 2014), and a survey requested by the European Commission reported that 26% of respondents in the European Union currently smoke, with an average of 14.2 cigarettes smoked per smoker per day (Special Eurobarometer 429, 2015).

The vast majority of smokers begin to use cigarettes or other forms of tobacco during adolescence. For this reason, most countries in the world are attempting to combat the problem by using mass media campaigns and the school curriculum to reduce youth tobacco



prevalence (Mississippi State Department of Health–MSDH, 2014; Osservatorio Fumo Alcol e Droga–OSSFAD, 2014; Schar *et al.*, 2006).

The Global Youth Tobacco Survey Collaborative Group (GYTS, 2002) estimated that globally, approximately 20% of adolescents between 13 and 15 years of age use tobacco, and approximately 25% of adolescents who smoke cigarettes begin before age of ten years. However, recent global data show a reduction in smoking rates, and on average, approximately 12% of adolescents aged between 13 and 15 years report using one or more types of tobacco product (WHO, 2019). Data from the USA reveal that each day in that country, more than 3,800 people under 18 smoke their first cigarette and more than 1,000 young people under 18 become daily cigarette smokers (HHS, 2012). In the European Union (EU), the number of people at or younger than 13 years of age who become daily smokers has generally decreased over the past 20 years, but unfortunately, there are some exceptions. For example, the rates in Italy have remained stable (European School Survey Project on Alcohol and Other Drugs–ESPAD, 2019). In addition, Italy is one of the EU countries with the highest proportion of current smokers among younger people (ESPAD, 2015, 2019).

Most people who begin smoking during childhood or adolescence remain tobacco users in adulthood because of the addictive effects of nicotine. Smoking cessation is problematic for adults and for young people, and the continuous use of cigarettes is related to short- and long-term health consequences. Health risks for young smokers include impairment to the respiratory and cardiovascular systems, development of cancer, deterioration of reproductive function and reduced life expectancy (HHS, 2012; OSSFAD, 2014).

The introduction of e-cigarettes has exacerbated the situation. The use of e-cigarettes among minors has recently increased, and this provides young people with the opportunity to try different types of devices that can contain nicotine, flavorings and other additives. Although aerosol from e-cigarettes is less harmful than common cigarette smoke, the presence of nicotine can cause addiction, priming young people to use other addictive substances, reducing impulse control and leading to deficits in attention and cognition, as well as mood disorders in adolescents (HHS, 2016).

Minors can be easily influenced by their peer group and the social context in which they live, but a great deal of the responsibility for youth smoking can be attributed to tobacco and e-cigarette marketing. Young people are an important target for these products, and data show that companies in the USA spent US\$9.2bn in 2012 on marketing for cigarettes and US\$125m in 2014 on marketing for e-cigarettes (HHS, 2016).

Companies promote the message that the use of cigarettes and e-cigarettes is an ordinary and glamorous activity through a variety of media such as television, movies, magazines and the internet. The strategies employed to make cigarettes and e-cigarettes attractive are similar and range from using celebrity endorsement, reducing prices and sponsoring sport events to using claims related to sexual themes, increase of the social status and customer satisfaction (HHS, 2012, 2016). In addition, e-cigarette advertisements contain health-related themes, encouraging the idea that these devices can help people to reduce cigarette use (Duke *et al.*, 2014), but currently, there is no evidence to recommend e-cigarettes as an effective method for quitting smoking (Kalkhoran and Glantz, 2016; OSSFAD, 2016).

Many studies have found an association between tobacco marketing and the consumption of tobacco products, attitude toward smoking and brand awareness in young audience (Arora *et al.*, 2008; Gilpin *et al.*, 2007; O'Hegarty *et al.*, 2009; Samir *et al.*, 2014). Thus, the prevention of youth smoking has become of primary importance, and research has indicated that social marketing actions and social advertisements can be effective ways to influence young people positively (Allen *et al.*, 2015; Brinn *et al.*, 2012; Farrelly *et al.*, 2003; Solomon *et al.*, 2009).

Given that young people often smoked their first cigarette early, it seems necessary to adopt anti-tobacco campaigns that target children. Currently, most anti-smoking public service announcements (PSAs) are directed toward adolescents and young adults, despite

evidence indicating that anti-smoking advertising can reduce smoking commencement in pre-adolescence (Wakefield *et al.*, 2003). As a result, there is a lack of research on the effectiveness of anti-tobacco PSAs that target children and on how children perceive different types of messages and appeals (Devlin *et al.*, 2007).

Research on advertisements for children has often focused on the effects of several persuasive elements such as message content, the best characters for commercials and production techniques, but has not considered making a comparison between the humor and fear appeals. However, this type of study has proved to be useful in other contexts such as HIV/AIDS prevention or anti-alcohol abuse messages (Lee and Ferguson, 2002; Lee and Shin, 2011; Soscia *et al.*, 2012).

Given the lack of comparative research on the effectiveness of humor and fear appeals, this study sought to understand whether different advertisement appeals (i.e. fear or humor appeals) have different effects on children's affective reactions toward anti-smoking PSAs, on children's beliefs about smoking and on children's behavioral intentions to smoke. This paper presents the findings of a qualitative study conducted in Italy with children aged from 8 to 11 years.

2. Theoretical background

Marketing programs can make valuable contribution to addressing social issues and promoting social change (Lefebvre, 2011). Social marketing activities refer to the "adaptation and adoption of commercial marketing activities, institutions and processes as a means to induce behavioral change in a targeted audience on a temporary or permanent basis to achieve a social goal" (Dann, 2010, p. 151). Although for a long time, the value of social marketing has been overlooked because of barriers and misconceptions (Andreassen, 2002; Donovan, 2011), in recent years, scholars have begun to shed new light on the transformative role that marketing can play in enhancing the well-being of societies (Kashif *et al.*, 2018; Russell-Bennett *et al.*, 2019).

Several studies have provided evidence of the effectiveness of marketing actions and programs in contributing to the alleviation of social problems. For example, well-designed marketing activities can reduce household food waste behavior (Kim *et al.*, 2020), increase pro-environmental and sustainable behaviors (Nguyen and Johnson, 2020), promote safe driving behaviors (Cismaru and Nimegeers, 2017), promote healthy eating habits (Nicolini and Cassia, 2021) and increase the adoption of specific hygiene measures (Choi and Powers, 2021).

Among the marketing programs adopted to pursue social change, communication activities and specifically PSAs play a major role (Truong *et al.*, 2021). Prior research has extensively demonstrated that the effectiveness of PSAs is highly influenced by message framing and the type of appeals being used (Dillard and Peck, 2000). In particular, fear and humor appeals can influence attitudes and behaviors more or less intensely depending on multiple factors, including the target of the PSAs and the social issue being addressed. For example, fear appeals are more effective than humor appeals in disease prevention campaigns targeting young adults (Soscia *et al.*, 2012). However, humor appeals are more effective than fear appeals in anti-alcohol abuse campaigns aimed at college binge drinkers (Lee, 2018). Hereafter, the study specifically addresses the reactions of children aged 8 to 11 years to fear and humor appeals in anti-smoking advertisements.

Emotional appeal is widely used in anti-smoking advertisements. This type of appeal elicits an affective response in viewers, which can be positive or negative. The feelings aroused (positive or negative) will be associated by the viewer with the message and the theme of the advertisement.

Negative tone in advertising is termed "fear" or "threat" appeal, and is defined as "a persuasive message that attempts to arouse the emotion of fear by depicting a personally

relevant and significant threat and then follows this description of the threat by outlining recommendations presented as feasible and effective in deterring the threat" (Witte, 1994, p. 114).

The fear or threat appeal is composed of a threat component and a coping component (Mongeau, 2012; Shen and Dillard, 2014). The threat component is subdivided into a description of the severity of the issue (i.e. a description of negative and undesirable consequences) and the susceptibility (or vulnerability) of the audience (i.e. the personal risks). The coping component is subdivided into response efficacy (i.e. the idea that the recommended behavior will alleviate the health threat) and self-efficacy (i.e. the audience's ability to perform the recommended behavior).

Several theoretical models have attempted to provide explanations of the psychological mechanisms involved in reactions that aim to reduce fear. These include the drive-reduction model (Hovland *et al.*, 1953), parallel response model (Leventhal, 1970), protection motivation theory (Rogers, 1975), extended parallel processing model (Witte, 1992) and stage model (De Hoog *et al.*, 2007).

Currently, there is no agreement on the effectiveness of fear appeal compared to humor appeal, particularly concerning fear and humor appeals aimed at adolescents. It is clear that anti-smoking advertising can influence tobacco use in young people, but further research must be undertaken to understand which message tone is more suitable to pre-adolescents and adolescents (Devlin *et al.*, 2007; Graham and Phau, 2013; Wakefield *et al.*, 2003; Uusitalo and Niemelä-Nyrhinen, 2008).

Some studies (Allen *et al.*, 2015; Biener *et al.*, 2004; Terry-McElrath *et al.*, 2005) have demonstrated that fear appeals have the most consistent effect on young people because the provocative tone and intense images can lead to discussion about, and greater attention paid to, the PSA's argument. By contrast, other studies (Hastings *et al.*, 2004; Sutfin *et al.*, 2008) have found that adolescents respond well to humor appeals because the pleasantness of an advertisement can translate into a favorable attitude toward the theme of the advertisement. In addition, fear appeals can provoke defensive reactions, inducing the audience to avoid or reject the message. In particular, young people could consider themselves invulnerable because of their young age or might think they are different from the target audience of the PSA, and consequently perceive that health risk messages are irrelevant (Devlin *et al.*, 2007; Pechmann, 2001).

As mentioned previously, most research on anti-smoking PSAs has focused on the effects of different message strategies and executional characteristics on adolescents and young adults only. Few studies have examined the impact of preventive advertisements on children, and particularly, little is known about the effectiveness of fear appeals on them. The children target is different from the adolescents target because cognitive abilities change between age brackets, as do tastes and preferences. For these reasons, further research that deals specifically with children can help to design social advertisements and social marketing strategies that enable direct and effective communication with this target.

Charry and Demoulin (2012) expanded the literature on fear appeals by including the children target. Their results provided evidence that the fear appeal is effective in promoting healthy food to children. However, Lawlor (2009) underlined that humor appeals are often used in commercials for children, and that children tend to favor aspects of advertisements that generate entertainment and pleasure.

Understanding how different types of message appeals can influence children is an important research topic for promoting the development of healthy lifestyle choices during childhood. Therefore, the aim of this research is to compare the impact of two different anti-tobacco PSAs targeting children: one using the humor appeal and the other using the fear appeal.

3. Methodology

This study adopted a qualitative approach to obtain more detailed and comprehensive results with semi-structured focus groups.

Before conducting the focus group sessions, two anti-tobacco PSAs were shown to the children. In general, it is possible to find three main message themes in anti-smoking advertising (Devlin *et al.*, 2007): negative health consequences, social norms and industry manipulation. The two social advertisements used in this research focused on the theme of negative health consequences.

The advertisements shown to the children were *Bully* from The Real Cost, a US anti-smoking national campaign, and *Robot* from Reject All Tobacco (RAT), a Mississippi anti-smoking campaign. Both advertisements were professionally dubbed into Italian.

Bully uses fear appeal, and studies (Duke *et al.*, 2015; Farrelly *et al.*, 2017; Huang *et al.*, 2017) have found that this advertisement attained a high level of recall and influenced tobacco-related risk perceptions in young people. This PSA portrays the cigarette as a tiny man that bullies teenagers. The tiny man is aggressive and controls every moment of the teenagers' day by giving them orders. The message of the advertisement is: "cigarettes are bullies, do not let tobacco control you."

Robot uses humor appeal. It is an advertisement that is part of a campaign for the prevention of tobacco use and is supported by a school-based program that was able to reduce teenagers' smoking initiation in Mississippi (Schar *et al.*, 2006). This PSA shows two scientists who are trying to train a robot to have emotions. When one of the scientists begins to smoke a cigarette, the robot becomes angry and takes the cigarette out of his mouth. The message of the advertisement is: "help someone quit smoking today so that they will be around tomorrow."

A series of semi-structured focus groups were conducted with a sample of 60 children between 8 and 11 years of age. The children were randomly chosen and divided into groups of five or six. The focus groups lasted a maximum of 30 min and were organized during school hours in separate classrooms at a primary school in Italy. The discussions were audio-recorded with the permission of the parents and the children. An interview guideline was used to ensure in-depth examination of the topics.

At the beginning of each focus group, the children watched *Robot* and *Bully*. They were then asked to indicate which PSA they liked and why, which main character of the two PSAs they preferred and why, and finally, which PSA convinced them that they should not try smoking and why it convinced them. The children were informed that they could choose both PSAs and the main character both PSAs for all question. In addition, attention was paid to the children's beliefs about smoking derived from viewing the two advertisements and whether there was any negative reaction (e.g. fear, rejection, disgust) aroused in the children by *Bully*.

Each question was asked in a manner designed to allow the children to respond in complete freedom. The questions were modified slightly on certain occasions according to the children's reactions and answers. All discussions in the focus groups were transcribed and then coded using NVivo 11 Plus software (computer-assisted qualitative data analysis software).

4. Results

4.1 Affective reactions to public service announcements

The answers related to which PSA the children liked and why, and which main character of the two PSAs they preferred and why were coded as the parent node "affective reactions to PSAs." Children's preferences for one or both PSAs and for one or both main characters were also coded so that a count of preferences could be obtained. As is seen in Figures 1 and 2, the majority of coding references were for *Robot* and for the robot character.

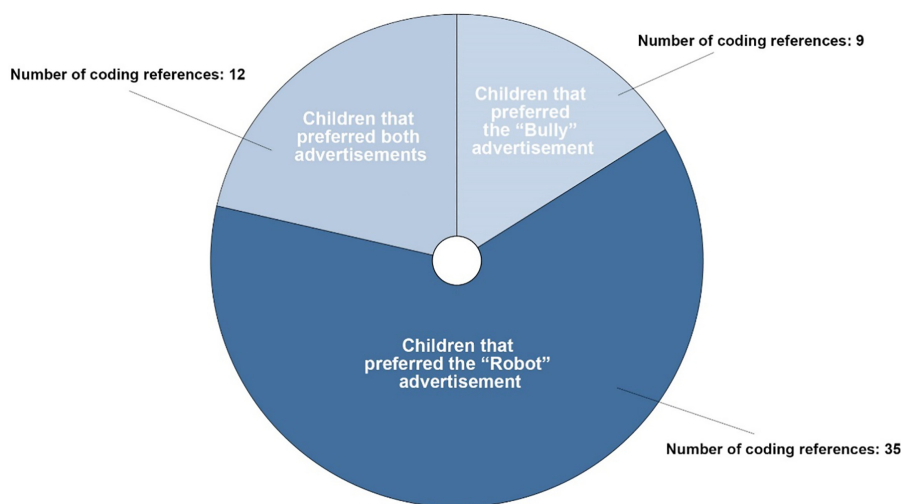


Figure 1.
Coding references for
affective reactions
toward PSAs –
advertisement
preference

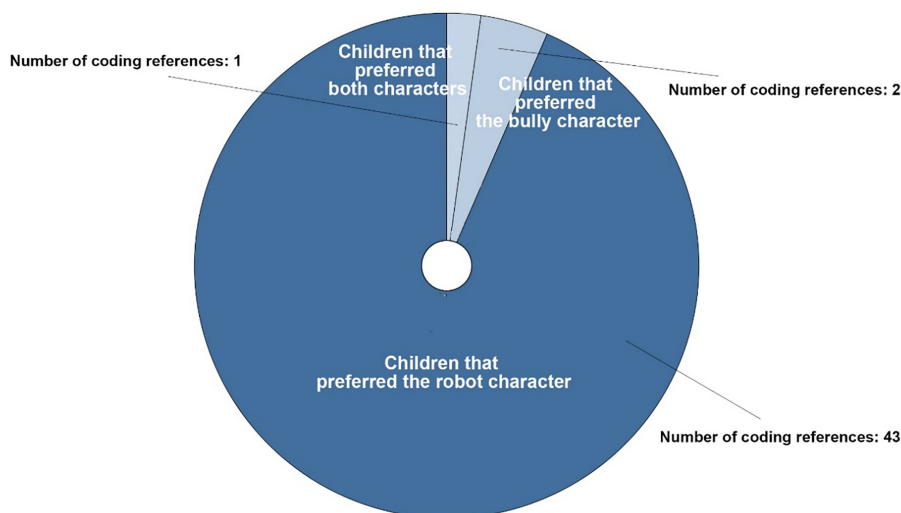


Figure 2.
Coding references for
affective reactions
toward PSAs –
character preference

The children explained that they chose *Robot* mainly because it was funny but also meaningful. They liked the advertisement's message and how it was conveyed by the use of the robot character. The children expressed that the protagonist made them laugh, and although it was only a robot, they said it was particularly intelligent because it tried to help the scientist to quit smoking. Conversely, the small number of children that chose *Bully* appreciated the analogy between the bullying and cigarette addiction. The children reported that this advertisement clearly showed them the negative effects of smoking.

From the focus group discussions, similar answers emerged and were categorized into thematic areas.

First thematic area for Robot: Entertainment. The children who spoke about *Robot* and its main character often described the PSA and the character as funny, nice and meaningful, and expressed that it made them laugh. For example:

- (1) *It's funny and it explains that smoking is bad and there is also the robot that makes me laugh.*
- (2) *It has a good message, that is, you must not smoke, and then the ad is funny and not too aggressive.*
- (3) *The ad is nice for children, but it also has a meaning because it speaks about when the robot is happy or not, when they [the scientists] do happy or sad things . . . The robot is happy when they do good things; then the scientist starts to smoke, and the robot gets angry and it takes the cigarette out of his mouth.*

Second thematic area for Robot: Robot's action. Many children were positively impressed by the robot's action of taking the cigarette out of the scientist's mouth. For example:

- (1) *The robot ad made me laugh and I liked the part where the robot took the cigarette away.*
- (2) *The ad made me laugh a little. I especially liked it when the robot took the cigarette out of the scientist's mouth, and it said a good thing: "Tell others to quit smoking and one day you will save a life."*

Third thematic area for Robot: Robot's emotions. The children's favorite. Their favorite characteristics of the robot were its facial expressions and its capacity to feel emotions. For example:

- (1) *The robot feels emotions too . . . It is similar to the things we also feel, but then it has understood a thing we cannot understand when we smoke. So, it tried to teach its engineer not to smoke because it's bad for your health.*
- (2) *I liked [the robot] because when they [the scientists] joked, the robot laughed, but when they picked up the cigarette, it was sad because smoking kills.*
- (3) *The robot ad was my favorite because there was this robot that had to learn things from these two scientists; it [the robot] had to acquire positive and negative things. One time, the two scientists have a break and one of them starts to smoke; in this way, the roles are swapped: the robot became a sort of scientist that said that the thing [smoking] was negative.*

Fourth thematic area for Robot: Robot's intelligence. The children considered the robot character intelligent because it understood and explained that smoking is unhealthy. It also tried to impede the scientist from smoking cigarettes. For example:

- (1) *Although the robot is a machine projected by humans, it understood that smoking is bad and in fact, it took the cigarette away from the hands of its creator.*
- (2) *I liked the ad because robots do not have a brain like us, but it realized that smoking is not good.*

Thematic area for Bully: Health consequences and smoking addiction/bullying analogy. The minority of children who chose *Bully* as the preferred PSA stated that they preferred this advertisement because it illustrated how cigarettes can influence their life. They reported that they felt the analogy between smoking addiction and bullying was appropriate for describing the negative aspects of using tobacco. For example:

- (1) *In my opinion, the idea that smoking is like bullies is true because, for example, my dad's fiancée always lights a cigarette before doing something.*
- (2) *I prefer this ad because when my sister smokes, she smokes one cigarette and immediately after that, she smokes another five.*
- (3) *I liked the last ad more because it explains that the cigarette is like a bully, or rather, it is worse than a bully. And the ad explains that you must not smoke because it harms your body, and you also waste your money for nothing.*

4.2 Beliefs about smoking

The beliefs related to smoking and derived from viewing the two advertisements were coded as the parent node "beliefs about smoking." Children's beliefs derived from *Bully* or *Robot* were coded to enable us to understand which PSA stimulated more discussion about smoking. As Figure 3 shows, most coding references were for *Bully*.

Bully generated spontaneous discussions among the children about many important topics. They spoke about nicotine addiction, the capacity of tobacco to change a person's life and personality, and how their friends can influence them to start to smoke. The children also provided many examples of their relatives that smoke cigarettes. *Robot* also stimulated discussions among children, but very little. Children were particularly focused on the message that they could save lives if they helped someone to quit smoking.

First thematic area for Bully: Family context. The children reported that after watching *Bully*, they thought about their personal situation and their relatives who smoke. For example:

- (1) *In my opinion, the ad is very meaningful because you must not smoke, and this is something that all children tell their parents. I say it to my uncle . . . I say, "Uncle, do not smoke, then you live life better."*
- (2) *My grandmother smokes and so does my aunty. I once gave my grandmother a bracelet with the words "No smoking," but she smokes anyway. The last time I cut her cigarette, but she smokes anyway.*

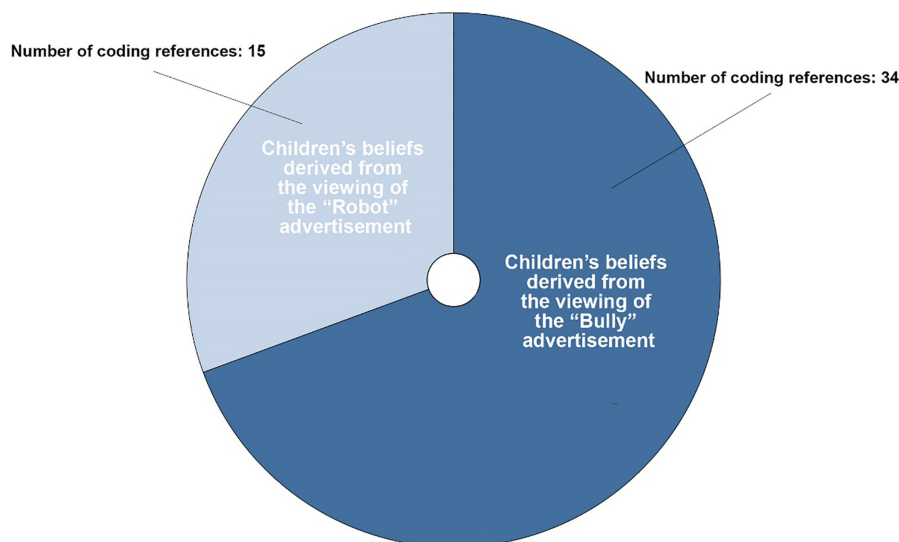


Figure 3.
Coding references for
beliefs about smoking

Second thematic area for Bully: Nicotine addiction. The children's responses revealed that *Bully* conveyed the concept of nicotine addiction well, and the children stated that they understood that smokers feel the need to have frequent breaks from their activities so they can smoke many cigarettes. For example:

- (1) *The ad specified that the cigarette is like a man that bullies. The cigarette enslaves people who smoke and if you are experiencing a pleasant moment, you say that you must smoke . . . you feel obligated to smoke, but it's not right.*
- (2) *The ad says that the cigarette is an addiction and nobody, as soon as they start to smoke, ever stops it. For example, one morning I saw a woman who, after she smoked one cigarette, immediately smoked another one.*
- (3) *The bully is a cigarette, and he gives orders to others. When you are doing something that you like and you want to smoke, you must interrupt that thing to go out to smoke.*

Third thematic area for Bully: Worst lifestyle. After watching *Bully*, the children reported the opinion that tobacco changes a person's personality and makes life worse. For example:

- (1) *The ad says that you change your character by smoking . . . that is, it brings you negative things.*
- (2) *When you smoke, you become angry.*
- (3) *Cigarettes are like bullies, that is, they ruin the life . . . I do not know why people do it because you shorten your life, then you feel bad. As soon as you finish smoking, you start to cough.*
- (4) *Cigarettes are like bullies because you waste your money. For what reason? Ruining your life? Isn't it [smoking] a ticket for death?*

Fourth thematic area for Bully: Peer group's influence. After watching *Bully*, the children expressed their awareness that many young people begin to smoke because they want to be part of the peer group or because they are forced to smoke by their friends. For example:

- (1) *The ad is appropriate, especially for the middle school children because if somebody tells you "Come with me to smoke, come to learn to smoke," you must not let yourself go just because this person is aggressive and forces you like you see in the ad. And if you speak about parents, the ad is also appropriate for them. Although they already know that they should quit smoking, they do not want to, so the ad is appropriate for them.*
- (2) *The ad says that they [young people] smoke not because they want to smoke but because they have friends that smoke. They are attached to their friends: "They are my friends; I want to be like them and so I start smoking."*

First thematic area for Robot: Passive smoking. The discussions derived from *Robot* are related to the concept of passive smoking and to the idea of saving lives by quitting smoking. For example:

- (1) *The ad is also addressed to others [persons that breathe second-hand smoke] because second-hand smoke is also bad for others.*
- (2) *If you have a person that smokes next to you and you are in a car, you breathe the smoke.*
- (3) *Robot sent a very good message, that is, if you quit smoking, then you can save a life every day.*

Second thematic area for Robot: Robot as an example to imitate. Some children considered the robot character an example to imitate or a machine that they hope will exist in the future. For example:

- (1) *I recommend the ad for the children of almost all ages, and it could depict a child with the dad and the mom. For example, the mom is smoking, the child says, "No, you must not smoke!" and he takes the cigarette, puts it out and throws it away.*
- (2) *But in my opinion the robot should be designed really and not just be pretend!*

4.3 Behavioral intention to smoke

The answers related to which PSA convinced the children that they should not try smoking and why this PSA convinced them were coded as the parent node "behavioral intention to smoke." The children's choice for one or both PSAs was also coded so that a count of preferences could be obtained. As Figure 4 reveals, the number of coding references was similar for both *Bully* and *Robot*.

A slightly larger number of children chose *Bully* as the more persuasive advertisement because it was a direct advertisement that used strong images to explain how tobacco could influence their life. The other children were convinced by *Robot* that they should not try smoking because they stated that it was particularly appropriate for an audience of children.

First thematic area for Bully: Shows negative effect of smoking. The children reported that the aggressive actions of the tiny man in *Bully* clearly show the effect of the cigarette addiction. For example:

- (1) *It conveys the message clearly and it shows and it explains why smoking is bad, also through the images.*
- (2) *The Robot ad is meaningful but it is especially for children. Instead, the Bully ad tries to make you really understand this thing [the negative consequences of smoking]. Because this ad is strong; it's no picnic!*
- (3) *The other ad [Robot] does not show the negative effects of cigarettes. It only says not to smoke, it does not show what happens if you smoke.*

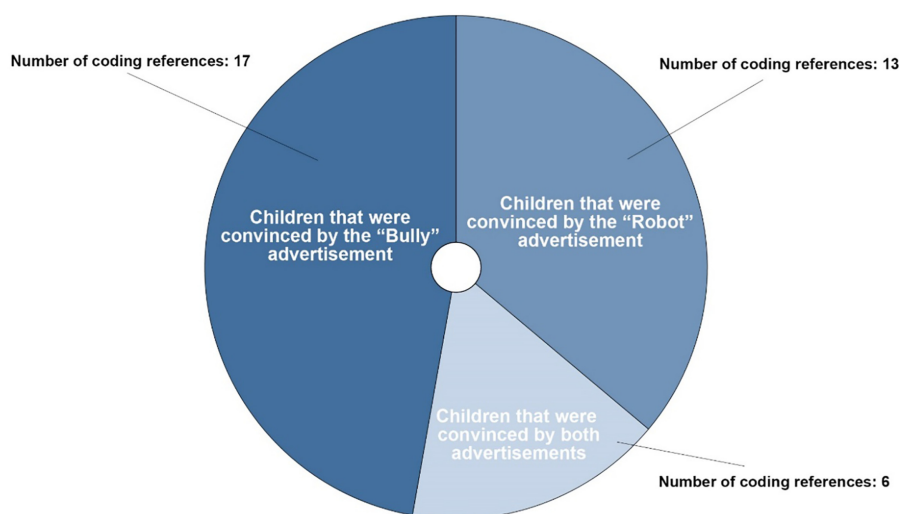


Figure 4.
Coding references for
behavioral intention
to smoke

Second thematic area for Bully: Children's understanding of the message. The children said that *Bully* conveyed the anti-smoking message directly. However, the analogy between cigarette addiction and bullying was a little difficult to understand for some of them. For example:

- (1) *The ad [Bully] is more direct and it makes you understand better than tobacco is bad and an addiction.*
- (2) *In my opinion, the ad [Bully] is more direct and meaningful. Even more, it makes you understand that this is an addiction.*
- (3) *The other ad [Robot] is nice, but Bully—maybe at the beginning it's a little difficult to understand—makes you understand better because I think it's simple to say to not smoke but the ad makes you really understand that if a person starts to smoke, that person never stops.*

Third thematic area for Bully: Peer group and the problem of bullying. Some children stated that *Bully* was persuasive because it was scary, and it demonstrated that friends could convince them to try to smoke. In addition, they said that the advertisement was addressed to an older target audience and presented not only the topic of smoking addiction but also the problem of bullying. For example:

- (1) *Sometimes when you go to school and see your schoolmates smoking, it makes you want to smoke too.*
- (2) *It [Bully] scares me a lot and in the end; there is the child that smokes because the man convinced him to.*
- (3) *This ad [Bully] convinced me more because it is for older people and you see that tobacco is bad, and because the bully told the boy to open his hands and he jumped in [the hands] like a cigarette that you hold in your hands.*
- (4) *[Bully has] another type of message . . . not only about cigarettes. In my opinion, you understand that you must not be a bully, you must not steal money, you must not beat up others.*

Thematic area for Robot: Robot's action to save another's life. The answers of the children who chose *Robot* were similar to those provided in relation to their affective reactions to PSAs and beliefs about smoking. The children expressed that they liked the idea of saving other people's lives and the robot's action of taking the cigarette out of the scientist's mouth. For example:

- (1) *The Robot ad convinced me because it says you must not smoke, and you must not make people around you smoke.*
- (2) *I choose Robot because when the scientist tried to light a cigarette, the robot went to take the lighter immediately.*
- (3) *As soon as the robot saw that the creator was putting the cigarette in his mouth, it took away the cigarette.*

4.4 Negative reactions caused by the Bully public service advertisement

During the focus group discussions, the children were free to express their opinions and their emotions (negative or positive) about the advertisements. As expected, the fear appeal generated negative comments and reactions. Children's answers emerged and were categorized into thematic areas.

The children expressed that they were appalled by the bully's behavior because he stole the boy's money and forced him to smoke. For example:

- (1) *The ad gives me a sense of violence committed against other people.*
- (2) *The ad is convincing about the idea that there's no point in smoking, but let's say, it's a little violent because you see this tiny bully that forces others to do what he wants and gives orders. And he is like a cigarette.*
- (3) *I do not like that he forces you to do everything he wants, for example, you pause the movie because you have to go to smoke, or you are dining, and he tells you to go out because you have to smoke. He forces you to do things.*

Some children saw the bully character as similar to the devil because he tempted boys and girls. For example:

- (1) *The bully was like the devil that drag the boy and he told him to do bad things. Sometimes the devil can force you to do bad things.*
- (2) *The ad gives me a feeling of being afraid of not being able to resist temptation.*

Bully was described by the children as an advertisement that was very meaningful but violent at the same time. The children expressed the feeling that the tiny man was unpleasant and too aggressive, and that they did not like this character. In addition, a minority of them stated they were scared by him or did not want to watch this PSA again. For example:

- (1) *The ad is very meaningful but also violent.*
- (2) *It is violent and scares you a little because the cigarette enslaves people for nothing.*
- (3) *It seemed to me like a horror film!*
- (4) *It scared me when he [the bully] said to fork it over.*
- (5) *I would never want to see this ad again because I will have nightmares.*

The children suggested that this PSA was not appropriate for younger children because of the violent content and the fact that the advertisement was not immediately understandable. For example:

- (1) *If you show this ad to the younger children when there is the commercial break, they will get scared.*
- (2) *Let's say that the ad should be recommended to a more mature audience because if younger children watch it, they do not understand anything.*
- (3) *I did not understand why he said, 'If I say fork it over, you fork it over'. I did not understand these things, that is, it seemed to me to be a bully . . . I did not understand who the man was until the writing appeared.*

4.5 Word frequency

After codification, a word frequency query was run to find the 15 words most used by the children to speak about each PSA. The results confirmed the thematic areas presented in the above sections (Table 1).

In the children's discussions, the word "cigarette(s)" and the verb "to smoke" were unsurprisingly repeated often because these terms represent the central theme of both advertisements. As discussed, the children considered *Robot* and the robot character funny, and it made them laugh. They enjoyed the robot's action of taking the cigarette out of the

Table 1.
Word frequency

Words: <i>Robot</i>	Count
Robot	83
To smoke	60
Cigarette(s)	29
Funny	14
Children/child	13
To take away/out	11
Scientist(s)	10
Mom	10
To laugh	8
Smoke	7
Meaning/meaningful	7
Nice	7
Mouth	6
Happy	5
To die	4
Words: <i>Bully</i>	Count
To smoke	92
Cigarette(s)	39
Bully(ies)	31
Boy(s)	18
Children/child	17
Money	13
Smoke	11
Life	11
Violent	10
Fear	8
Smaller/tiny	8
Friends	8
Meaningful	8
Persons	8
Dad	7

scientist’s mouth, and some expressed that they thought they could do the same with their parents or relatives. By contrast, *Bully* was evaluated as a little violent, but despite this, it was an advertisement that conveyed an important message. Cigarette addiction was compared with a small bully that forces people to give their money way and to smoke. This analogy allowed the children to understand that smoking addiction can make a person’s life worse.

4.6 Summary of results

Results demonstrated that *Robot* and the robot character were appreciated more by the children than were *Bully* and its character (i.e. affective reactions to PSAs). There was a similar number of coding references for both PSAs, indicating that they convinced the children that they should not try to smoke (i.e. behavioral intentions to smoke); however, there was a slight preference for *Bully*. In addition, the number of coding references for beliefs about smoking derived from viewing *Bully* were clearly higher than they were for *Robot*.

The difference relating to beliefs about smoking was probably due to the stimulus given to the children who reflected more deeply for *Bully*. This meant it was possible to obtain more detailed and comprehensive comments relating to their views about smoking and how they were influenced by the PSA.

5. Discussion

5.1 Theoretical implications

The results highlighted that the children appreciated the advertisement that they found funny and that made them laugh (i.e. *Robot*). This finding was in accordance with other research (Lawlor, 2009) that has found that children tend to favor aspects in advertisements that generate entertainment and pleasure.

Both PSAs seemed to be well designed and effective because there were no significant differences in the answers related to the children's behavioral intentions, despite the slight preference for *Bully* when children reported which PSA convinced them not to try smoking. Further, in analyzing these children's discussions in depth, it was noted that the choice explanations of choosing *Bully* as the preferred advertisement touched on a large variety of topics, contrary to the choice explanations of choosing *Robot*.

In addition, during the focus group sessions, *Bully* generated more spontaneous discussions (i.e. related to beliefs about smoking) among the children about many important themes. They spoke about nicotine addiction, the capacity of tobacco to change a person's life and personality and how their friends can influence them to start smoking. By contrast, after viewing *Robot*, the children discussed only the idea that they could save lives if they helped someone to quit smoking and the possibility of imitating the robot's actions.

While *Bully* does not present any extreme scenes, it triggered a range of negative emotions and comments in children. This seems to indicate that the fear appeal increased the children's attention and caused them to consider the implications of the advertisement's content in relation to their own health. According to Charry and Demoulin (2012), threat appeals in advertisements persuade pre-adolescents through an affective process, and eliciting high levels of fear is not essential to effectiveness of the advertisements. Some studies have indicated that high fear appeals are more persuasive than low fear appeals (e.g. Witte and Allen, 2000), but Dickinson and Holmes (2008) found that low and moderate threats were the most effective for adolescents in relation to persuasiveness.

A significant characteristic of *Bully* is the analogy between smoking addiction and bullying. Peracchio and Luna (1998) suggested that children often use analogical reasoning. This means that it is necessary to draw a parallel between smoking and items familiar to children to design a message that communicates short- and long-term health consequences directly to them.

Thus, while humor appeal appears to be a useful method to convey a social theme in a pleasant way and to create a likable character that becomes an example for children to imitate, it is necessary to develop a fear appeal to make children reflect carefully about topics related to unhealthy habits.

5.2 Practical implications

As discussed, *Bully* used moderate fear appeal because the target of the advertisement is minors. In fact, the reactions elicited in the children varied: some children laughed because of the small dimension of the bully character; nevertheless, most of them were appalled by the bully's aggressive behavior, and it was observed that they kept quiet and straight faced while they were viewing the advertisement.

This point is of interest because the children's reaction to *Bully* demonstrates that governmental institutions and advertisers could use fear appeals and not only humor appeals to convey health messages efficaciously to minors. Moderate fear appeal should be used instead of strong fear appeal to prevent reactive responses to advertisements, and the content message should be suited to the children target.

There could be debate about the ethics of using fear appeals addressed to children; however, it is important to note that antagonists and negative situations have always been

used in fables and fairy tales as a means of education to make children learn about what is good or bad. Fear appeal in PSAs can be considered a sort of fable or fairy tale redefined for the modern age.

Overall, given that the first cigarette is often smoked early by young people, it seems necessary to adopt anti-tobacco campaigns targeting children. Today, most PSAs are directed only toward adolescents and young adults, but as the findings of this study demonstrated, the creation of anti-tobacco advertising campaigns for children could help them to understand the negative consequences of smoking and influence them during childhood. Therefore, the study is useful for governmental institutions that should evaluate increasing their investment in social anti-smoking advertisements for children to address societal needs and to the impact of tobacco products on public health.

An aspect to consider when designing a social advertisement is the differences between age groups in children's understanding of advertising. The focus group discussions revealed that some children did not immediately understand the analogy between nicotine addiction and bullying. This was particularly true for the youngest children. Consequently, it may be useful for governmental institutions and advertisers to plan advertising campaigns with an age approach by using different themes for different age groups.

The two social advertisements used in this research focused on the theme of health consequences, but as the discussions demonstrated, the children also identified the theme of social norms in *Bully*. The presence of the character that bullied boys and girls called to the children's mind the idea that the peer group can force them to start smoking. Therefore, the combination of the theme of health consequences and social norms in one PSA could be a good option for future social advertisements.

5.3 Limitations and future research

This study provided some useful insight into which appeals (i.e. humor or fear) and advertisement elements can help to convey an anti-tobacco message to children; however, there are some limitations to consider.

More research is needed in the following areas. First, this study examined only children's behavioral intentions, but future research should also examine their real behaviors (i.e. a reduction of tobacco initiation) after a period following repeated viewing of PSAs. Second, the two advertisements watched by the children were anti-smoking advertisements. Future studies should consider a comparison between fear appeals and humor appeals in advertisements about other social subjects. Third, this study analyzed the theme of negative health consequences, but it could be relevant to analyze the impact on children of different fear appeal contents (e.g. the theme of negative health consequences, the theme of social norms and the theme of industry manipulation) used alone and/or combined in one PSA.

References

- Allen, J.A., Duke, J.C., Davis, K.C., Kim, A.E., Nonnemaker, J.M. and Farrelly, M.C. (2015), "Using mass media campaigns to reduce youth tobacco use: a review", *American Journal of Health Promotion*, Vol. 30 No. 2, pp. e71-e82.
- Andreasen, A.R. (2002), "Marketing social marketing in the social change marketplace", *Journal of Public Policy and Marketing*, Vol. 21 No. 1, pp. 3-13.
- Arora, M., Reddy, K.S., Stigler, M.H. and Perry, C.L. (2008), "Associations between tobacco marketing and use among urban youth in India", *American Journal of Health Behavior*, Vol. 32 No. 3, pp. 283-294.
- Biener, L., Ji, M., Gilpin, E.A. and Albers, A.B. (2004), "The impact of emotional tone, message, and broadcast parameters in youth anti-smoking advertisements", *Journal of Health Communication*, Vol. 9 No. 3, pp. 259-274.

- Brinn, M.P., Carson, K.V., Esterman, A.J., Chang, A.B. and Smith, B.J. (2012), "Mass media interventions for preventing smoking in young people", *Evidence-Based Child Health: A Cochrane Review Journal*, Vol. 7, pp. 86-144.
- Charry, K.M. and Demoulin, N.T. (2012), "Behavioural evidence for the effectiveness of threat appeals in the promotion of healthy food to children", *International Journal of Advertising*, Vol. 31 No. 4, pp. 773-794.
- Choi, S. and Powers, T.L. (2021), "COVID-19: lessons from South Korean pandemic communications strategy", *International Journal of Healthcare Management*, Vol. 14 No. 1, pp. 271-279.
- Cismaru, M. and Nimegeers, K. (2017), "Keep your eyes up, don't text and drive': a review of anti-texting while driving Campaigns' recommendations", *International Review on Public and Nonprofit Marketing*, Vol. 14 No. 1, pp. 113-135.
- Dann, S. (2010), "Redefining social marketing with contemporary commercial marketing definitions", *Journal of Business Research*, Vol. 63 No. 2, pp. 147-153.
- De Hoog, N., Stroebe, W. and de Wit, J.B.F. (2007), "The impact of vulnerability to and severity of a health risk on processing and acceptance of fear-arousing communications: a meta-analysis", *Review of General Psychology*, Vol. 11, pp. 258-285.
- Devlin, E., Eadie, D., Stead, M. and Evans, K. (2007), "Comparative study of young people's response to anti-smoking messages", *International Journal of Advertising*, Vol. 26 No. 1, pp. 99-128.
- Dickinson, S. and Holmes, M. (2008), "Understanding the emotional and coping responses of adolescent individuals exposed to threat appeals", *International Journal of Advertising*, Vol. 27 No. 2, pp. 251-278.
- Dillard, J.P. and Peck, E. (2000), "Affect and persuasion: emotional responses to public service announcements", *Communication Research*, Vol. 27 No. 4, pp. 461-495.
- Donovan, R. (2011), "Social marketing's myth understandings", *Journal of Social Marketing*, Vol. 1 No. 1, pp. 8-16.
- Duke, J.C., Lee, Y.O., Kim, A.E., Watson, K.A., Arnold, K.Y., Nonnemaker, J.M. and Porter, L. (2014), "Exposure to electronic cigarette television advertisements among youth and young adults", *Pediatrics*, Vol. 134 No. 1, pp. e29-e36.
- Duke, J.C., Alexander, T.N., Zhao, X., Delahanty, J.C., Allen, J.A., MacMonegle, A.J. and Farrelly, M.C. (2015), "Youth's awareness of and reactions to the real cost national tobacco public education campaign", *PLoS ONE*, Vol. 10 No. 12, pp. 1-12.
- European School Survey Project on Alcohol and Other Drugs (ESPAD) (2015), "Report", available at: http://www.espad.org/sites/espad.org/files/ESPAD_report_2015.pdf (accessed 13 March 2021).
- European School Survey Project on Alcohol and Other Drugs (ESPAD) (2019), "Report", available at: http://www.espad.org/sites/espad.org/files/2020.3878_EN_04.pdf (accessed 13 March 2021).
- Farrelly, M.C., Niederdeppe, J. and Yarsevich, J. (2003), "Youth tobacco prevention mass media campaigns: past, present, and future directions", *Tobacco Control*, Vol. 12, pp. i35-i47.
- Farrelly, M.C., Duke, J.C., Nonnemaker, J., MacMonegle, A.J., Alexander, T.N., Zhao, X., Delahanty, J.C., Rao, P. and Allen, J.A. (2017), "Association between the Real Cost media campaign and smoking initiation among youths - United States, 2014-2016", *Morbidity and Mortality Weekly Report*, Vol. 66 No. 2, pp. 47-50.
- Gilpin, E.A., White, M.M., Messer, K. and Pierce, J.P. (2007), "Receptivity to tobacco advertising and promotions among young adolescents as a predictor of established smoking in young adulthood", *American Journal of Public Health*, Vol. 97 No. 8, pp. 1489-1495.
- Graham, F. and Phau, I. (2013), "Adolescent and young adult response to fear appeals in anti-smoking messages", *Young Consumers*, Vol. 14 No. 2, pp. 155-166.
- The Global Youth Tobacco Survey Collaborative Group (GYTS) (2002), "Tobacco use among youth: a cross country comparison", *Tobacco Control*, Vol. 11, pp. 252-270.

- Hastings, G., Stead, M. and Webb, J. (2004), "Fear appeals in social marketing: strategic and ethical reasons for concern", *Psychology & Marketing*, Vol. 21 No. 11, pp. 961-986.
- Hovland, C., Janis, I. and Kelly, H. (1953), *Communication and Persuasion*, Yale University Press, New Haven, CT.
- Huang, L.L., Lazard, A.J., Pepper, J.K., Noar, S.M., Ranney, L.M. and Goldstein, A.O. (2017), "Impact of the Real Cost campaign on adolescents' recall, attitudes, and risk perceptions about tobacco use: a national study", *International Journal of Environmental Research and Public Health*, Vol. 14 No. 1, p. 42.
- Kalkhoran, S. and Glantz, S.A. (2016), "E-cigarettes and smoking cessation in real-world and clinical settings: a systematic review and meta-analysis", *The Lancet Respiratory Medicine*, Vol. 4 No. 2, pp. 116-128.
- Kashif, M., Fernando, P., Altaf, U. and Walsh, J. (2018), "Re-imagining marketing as societing: a critical appraisal of marketing in a developing country context", *Management Research Review*, Vol. 41 No. 3, pp. 359-378.
- Kim, J., Rundle-Thiele, S., Knox, K. and Hodgkins, S. (2020), "Outcome evaluation of an empirical study: food waste social marketing pilot", *Social Marketing Quarterly*, Vol. 26 No. 2, pp. 111-128.
- Lawlor, M. (2009), "Advertising connoisseurs: children's active engagement with and enjoyment of television advertising", *Irish Marketing Review*, Vol. 20 No. 1, pp. 23-24.
- Lee, M.J. (2018), "College students' responses to emotional anti-alcohol abuse media messages: should we scare or amuse them?", *Health Promotion Practice*, Vol. 19 No. 3, pp. 465-474.
- Lee, M.J. and Ferguson, M.A. (2002), "Effects of anti-tobacco advertisements based on risk-taking tendencies: realistic fear vs. vulgar humor", *Journalism and Mass Communication Quarterly*, Vol. 79 No. 4, pp. 945-963.
- Lee, M.J. and Shin, M. (2011), "Fear versus humor: the impact of sensation seeking on physiological, cognitive, and emotional responses to antialcohol abuse messages", *The Journal of Psychology*, Vol. 145 No. 2, pp. 73-92.
- Lefebvre, R.C. (2011), "An integrative model for social marketing", *Journal of Social Marketing*, Vol. 1 No. 1, pp. 54-72.
- Leventhal, H. (1970), "Findings and theory in the study of fear communications", in Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology*, Academic Press, New York, NY, Vol. 5, pp. 119-186.
- Mongeau, P.A. (2012), "Fear appeals", *The SAGE Handbook of Persuasion: Developments in Theory and Practice*, SAGE Publications Inc, Thousand Oak, CA, pp. 184-199.
- Mississippi State Department of Health - Office of Tobacco Control (MSDH) (2014), "Annual report 2014 - break the chain", available at: http://msdh.ms.gov/msdhsite/_static/resources/5413.pdf (accessed 12 January 2021).
- Nguyen, N. and Johnson, L.W. (2020), "Consumer behaviour and environmental sustainability", *Journal of Consumer Behaviour*, Vol. 19 No. 6, pp. 539-541.
- Nicolini, V. and Cassia, F. (2021), "The influence of PSA's likeability on children's intentions to eat healthy food", *International Review on Public and Nonprofit Marketing*, pp. 1-22, doi: [10.1007/s12208-021-00287-2](https://doi.org/10.1007/s12208-021-00287-2).
- O'Hegarty, M., Thorne, S., Pederson, L.L., Asman, K. and Malarcher, A. (2009), "Cigarette brand preference among middle and high school students who are established smokers-United States, 2004 and 2006", *Morbidity and Mortality Weekly Report*, Vol. 58 No. 5, pp. 112-115.
- Osservatorio Fumo Alcol e Droga (OSSFAD) (2014), "I giovani e il fumo di tabacco", available at: http://www.iss.it/binary/fumo4/cont/I_Giovani_e_il_fumo_di_tabacco.pdf (accessed 12 January 2021).
- Osservatorio Fumo Alcol e Droga (OSSFAD) (2016), "Rapporto nazionale sul fumo 2016", available at: http://www.iss.it/binary/ofad4/cont/Pacifici_1.pdf and http://www.iss.it/binary/ofad4/cont/Pacifici_2.pdf (accessed 12 January 2021).

- Pechmann, C. (2001), *Changing Adolescent Smoking Prevalence: Impact of Advertising Interventions*, The National Cancer Institute, Smoking and Tobacco Control Monograph, No. 14, Bethesda (Maryland), available at: https://cancercontrol.cancer.gov/brp/tcrb/. . /14/14_10.pdf (accessed 10 March 2020).
- Peracchio, L.A. and Luna, D. (1998), "The development of an advertising campaign to discourage smoking initiation among children and youth", *Journal of Advertising*, Vol. 27 No. 3, pp. 49-56.
- Rogers, R.W. (1975), "A protection motivation theory of fear appeals and attitude change", *The Journal of Psychology*, Vol. 91 No. 1, pp. 93-114.
- Russell-Bennett, R., Fisk, R.P., Rosenbaum, M.S. and Zainuddin, N. (2019), "Commentary: transformative service research and social marketing—converging pathways to social change", *Journal of Services Marketing*, Vol. 33 No. 6, pp. 633-642.
- Samir, S., Ambrose, B.K., Lee, W., Sargent, J. and Tanski, S. (2014), "Direct-to-consumer tobacco marketing and its association with tobacco use among adolescents and young adults", *Journal of Adolescent Health*, Vol. 55 No. 2, pp. 209-215.
- Schar, E., Gutierrez, K., Murphy-Hoefer, R. and Nelson, D.E. (2006), *Tobacco Use Prevention Media Campaigns: Lessons Learned from Youth in Nine Countries*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, available at: https://stacks.cdc.gov/view/cdc/11400/cdc_11400_DS1.pdf (accessed 5 March 2020).
- Shen, L. and Dillard, J.P. (2014), "Threat, fear, and persuasion: review and critique of questions about functional form", *Review of Communication Research*, Vol. 2 No. 1, pp. 94-114.
- Solomon, L.J., Bunn, J.Y., Flynn, B.S., Pirie, P.L., Worden, J.K. and Ashikaga, T. (2009), "Mass media for smoking cessation in adolescents", *Health Education and Behavior*, Vol. 36, pp. 642-659.
- Soscia, I., Turrini, A. and Tanzi, E. (2012), "Non Castigat Ridendo Mores: evaluating the effectiveness of humor appeal in printed advertisements for HIV/AIDS prevention in Italy", *Journal of Health Communication*, Vol. 17 No. 9, pp. 1011-1027.
- Special Eurobarometer 429 (2015), "Attitudes of Europeans towards tobacco and electronic cigarettes", available at: http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_429_en.pdf (accessed 12 January 2021).
- Sutfin, E.L., Szykman, L.R. and Moore, M.C. (2008), "Adolescents' responses to anti-tobacco advertising: exploring the role of adolescents' smoking status and advertisement theme", *Journal of Health Communication*, Vol. 13 No. 5, pp. 480-500.
- Terry-McElrath, Y., Wakefield, M., Ruel, E., Balch, G.I., Emery, S., Szczypka, G., Clegg-Smith, K. and Flay, B. (2005), "The effect of antismoking advertisement executional characteristics on youth comprehension, appraisal, recall, and engagement", *Journal of Health Communication*, Vol. 10 No. 2, pp. 127-143.
- Truong, V.D., Dong, X.D., Saunders, S.G., Pham, Q., Nguyen, H. and Tran, N.A. (2021), "Measuring, evaluating, and documenting social marketing impact", *Journal of Social Marketing*, Vol. 11 No. 3, pp. 259-277.
- US Department of Health and Human Services (HHS) (2012), *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, GA, available at: https://www.ncbi.nlm.nih.gov/books/NBK99237/pdf/Bookshelf_NBK99237.pdf (accessed 5 June 2020).
- US Department of Health and Human Services (HHS) (2014), *The Health Consequences of Smoking - 50 Years of Progress: A Report of the Surgeon General*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, GA, available at: <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf> (accessed 5 June 2020).

- US Department of Health and Human Services (HHS) (2016), *E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, GA, available at: https://www.cdc.gov/tobacco/data_statistics/sgr/e-cigarettes/pdfs/2016_sgr_entire_report_508.pdf (accessed 5 June 2020).
- Uusitalo, O. and Niemelä-Nyrhinen, J. (2008), "Exploring message themes in antismoking advertising targeted at teenagers", *Young Consumers*, Vol. 9 No. 1, pp. 29-36.
- Wakefield, M., Flay, B., Nichter, M. and Giovino, G. (2003), "Effects of anti-smoking advertising on youth smoking: a review", *Journal of Health Communication*, Vol. 8 No. 3, pp. 229-247.
- World Health Organization (WHO) (2015), "Report on the global tobacco epidemic", available at: http://apps.who.int/iris/bitstream/10665/178574/1/9789240694606_eng.pdf?ua=1&ua=1 (accessed 13 March 2021).
- World Health Organization (WHO) (2019), "WHO global report on trends in prevalence of tobacco use 2000-2025", available at: <https://apps.who.int/iris/bitstream/handle/10665/330221/9789240000032-eng.pdf?ua=1> (accessed 13 March 2021).
- Witte, K. (1992), "Putting the fear back into fear appeals: the extended parallel process model", *Communications Monographs*, Vol. 59 No. 4, pp. 329-349.
- Witte, K. (1994), "Fear control and danger control: a test of the extended parallel process model (EPPM)", *Communication Monographs*, Vol. 61 No. 2, pp. 113-134.
- Witte, K. and Allen, M. (2000), "A meta-analysis of fear appeals: implications for effective public health campaigns", *Health Education and Behavior*, Vol. 27 No. 5, pp. 591-615.

Further reading

- Baumgartner, E. and Laghi, F. (2012), "Affective responses to movie posters: differences between adolescents and young adults", *International Journal of Psychology*, Vol. 47 No. 2, pp. 154-160.
- D'Alessio, M., Laghi, F. and Baiocco, R. (2009), "Attitudes toward TV advertising: a measure for children", *Journal of Applied Developmental Psychology*, Vol. 30, pp. 409-418.
- Derbaix, C. and Pecheux, C. (2003), "A new scale to assess children's attitude toward TV advertising", *Journal of Advertising Research*, Vol. 43, pp. 390-399.
- Hota, M., Cáceres, R.C. and Cousin, A. (2010), "Can Public-Service Advertising change children's nutrition habits?", *Journal of Advertising Research*, Vol. 50, pp. 460-477.
- Lioutas, E.D. and Tzimitra-Kalogianni, I. (2014), "'I saw Santa drinking soda!' Advertising and children's food preferences", *Child: Care, Health and Development*, Vol. 41 No. 3, pp. 424-433.
- Vermeir, I. and Van de Sompel, D. (2014), "Assessing the what is beautiful is good stereotype and the influence of moderately attractive and less attractive advertising models on self-perception, ad attitudes, and purchase intentions of 8-13-year-old children", *Journal of Consumer Policy*, Vol. 37 No. 2, p. 205.

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