



## An Analysis of Electronic Cigarette and Cigarette Advertising in US Women's Magazines

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### ABSTRACT

**Background:** Traditional cigarette advertising has existed in the US for over 200 years. Studies suggest that advertising has an impact on the initiation and maintenance of smoking behaviors. In recent years, electronic cigarettes (e-cigarettes) emerged on the market as an alternative to the traditional tobacco cigarette. The purpose of this study was to describe advertisements in popular US magazines marketed to women for cigarettes and e-cigarettes.

**Methods:** This study involved analyzing 99 issues of 14 popular US magazines marketed to women.

**Results:** Compared to advertisements for traditional cigarettes, advertisements for e-cigarettes were more often found in magazines geared toward the 31–40-year-old audience (76.5% vs. 53.1%,  $P = 0.011$ ) whereas traditional cigarette advertisements were nearly equally distributed among women 31–40 and  $\geq 40$  years. More than three-quarters of the e-cigarette advertisements presented in magazines aimed at the higher median income households compared to a balanced distribution by income for traditional cigarettes ( $P = 0.033$ ).

**Conclusions:** Future studies should focus on specific marketing tactics used to promote e-cigarette use as this product increases in popularity, especially among young women smokers.

**Keywords:** Advertising, cigarette, electronic cigarette, magazines, women

### INTRODUCTION

The World Health Organization (WHO) estimates that 250 million women worldwide smoke daily.<sup>[1]</sup> The prevalence of female smokers has been increasing annually, with overall prevalence estimated to increase

to 25% in 2025.<sup>[2]</sup> The WHO suggests that among the reasons for maintaining this level of women who smoke is the fact that cigarettes are promoted as “sexual allure.”<sup>[1]</sup>

Traditional cigarette advertising has existed in the US for over 200 years.<sup>[3]</sup> Studies suggest that advertising has an impact on the initiation and maintenance of smoking behaviors.<sup>[4]</sup> In recent years, electronic cigarettes (e-cigarettes) emerged on the market as an alternative to the traditional tobacco cigarette. This

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device is battery-operated and has a similar appearance to the traditional cigarette.<sup>[5]</sup> The e-cigarette involves heating a liquid, usually containing nicotine, and converts this liquid into vapor.<sup>[5]</sup> The inhalation and release of this vapor through the mouth are commonly referred to as “vaping.”<sup>[5]</sup> There is no tobacco inhalation involved in smoking e-cigarettes as there is with tobacco cigarettes.<sup>[5]</sup>

Despite it being a relatively new phenomenon, the use of e-cigarettes has quickly gained popularity.<sup>[6]</sup> While the safety of e-cigarettes is being studied, marketing tactics include highlighting the unsubstantiated claim that e-cigarettes are a safer product.<sup>[7]</sup> The purpose of this study was to describe advertisements in popular US magazines marketed to women for cigarettes and e-cigarettes.

## METHODS

### Study design

This study involved analyzing 99 issues of 14 popular US magazines marketed to women: Allure, Cosmopolitan, Cosmopolitan for Latinas, Ebony, Elle, Essence, Girl’s Life, Glamour, Jet, Latina, Marie Claire, Seventeen, Teen Vogue, Vogue. All issues were from January 2014 to August 2014, and 12 were seasonal issues (constituting more than 1 month). These magazines were selected as they fit the genre of focusing on beauty and fashion, as well as their wide-ranging reach and high level of readership.

Characteristics of the readership of each magazine were obtained from online media kits containing annual readership statistics and demographics, including median age and median household income, and are described in detail elsewhere.<sup>[8]</sup> Median age was grouped as  $\leq 21$ , 22–30, 31–40, and  $\geq 40$  years to correspond with standardized age groupings for young adolescent, young adult, adult, and middle-aged adult, respectively. Using the national median for annual household income, median household income of the readership was dichotomized at or below and greater than the national median of \$51,939. Three magazines targeted to Black women (Ebony, Essence, Jet) and two magazines targeted to Latina women (Cosmopolitan Latina, Latina) were coded as “marketed to a Black or Latina audience.”

### Study instruments and variables assessment

Using a coding sheet adapted from the previous studies of magazine analysis,<sup>[8]</sup> the characteristics of advertisements in this sample of magazines were gathered. Magazines were purchased and advertisements were enumerated and categorized based on the product or service highlighted. The inclusion criteria for advertisements in this sample were all paid advertisements that were permanent parts of the magazine. Any product that was featured in a photo or highlighted as a favorite item was not included in the

sample unless it was clearly a paid advertisement. Front covers were not included as advertisements, but back covers were. When advertisements related to cigarettes and e-cigarettes were identified, a further content analysis was conducted. The presence of warnings in the cigarette advertisement was assessed. Each advertisement was reviewed for: (1) Partying, (2) fun with friends, (3) being “cool,” (4) enjoyment, (5) happiness, and (6) having a free spirit in addition to the presence of models. The appearance of models was limited to healthy or unhealthy, and this was defined in the following way: Healthy was defined as appearing to be vigorous and free of disease. A sample of 10% of the magazines was recoded to establish intra-rater reliability as measured by Cohen’s kappa. Intra-rater reliability was found to be 0.96 (range 0.89–1.00).

### Statistical analysis

The statistical analysis included deriving descriptive statistics. Analyses were performed using Statistics for Windows Version 22.0 Armonk, NY (version 22). Associations between magazine and advertisement and type of cigarette advertisement (traditional cigarette vs. e-cigarette) were determined using Chi-square analysis. The Institutional Review Boards at William Paterson University and Lehman College do not review studies that do not include human subjects.

## RESULTS

The combined readership of the magazines included in this sample was 78,598,357. A total of 98 advertisements for cigarettes were found, and of these, 17 (17.3%) were for e-cigarettes [Table 1]. The majority of cigarette advertisements (57.1%) was found in magazines whose readership was 31–40 years of age and had a median household income greater than the national average (53.1%). More than half of the cigarette advertisements were found in magazines targeting dark-skinned or Latina audiences. Warnings were present in all cigarette advertisements and the most common theme in the cigarette advertisements was “being cool” (54.1%), followed by “partying” (41.8%). Nearly every cigarette advertisement that featured models (98.5%) presented images of healthy individuals.

Compared to advertisements for traditional cigarettes, advertisements for e-cigarettes were more often found in magazines geared toward the 31–40-year-old audience (76.5% vs. 53.1%,  $P = 0.011$ ) whereas traditional cigarette advertisements were nearly equally distributed among women 31–40 and  $\geq 40$  years [Table 1]. More than three-quarters of the e-cigarette advertisements presented in magazines aimed at the higher median income households compared to a balanced distribution by income for traditional cigarettes ( $P = 0.033$ ). Themes

**Table 1: Characteristics of magazine readership and cigarette advertisements by type of cigarette (n=98)**

	Total cigarette advertisement	Cigarette type		P
		E-cigarette (n=17, 17.3%)	Traditional cigarette (n=81, 82.6%)	
<b>Readership characteristics</b>				
Median age				
≤21	1 (1.0)	1 (5.9)	0 (0.0)	0.011
22-30	0 (0.0)	0 (0.0)	0 (0.0)	
31-40	56 (57.1)	13 (76.5)	43 (53.1)	
≥40	41 (41.8)	3 (17.6)	38 (46.9)	
Median household income (\$)				
≤51,939	46 (46.9)	4 (23.5)	42 (51.9)	0.033
>51,939	52 (53.1)	13 (76.5)	39 (48.1)	
Marketed to dark-skinned or Latina audience <sup>a</sup>				
Yes	55 (56.1)	3 (17.6)	52 (64.2)	<0.0001
No	43 (43.9)	14 (82.4)	29 (35.8)	
<b>Advertisement characteristics</b>				
Warnings present in cigarette advertisement	98 (100.0)	17 (100.0)	81 (100.0)	-
Themes in cigarette advertisements <sup>b</sup>				
Partying	41 (41.8)	2 (11.8)	39 (48.1)	0.006
Fun with friends	33 (33.7)	10 (58.8)	23 (28.7)	0.016
Being “cool”	53 (54.1)	13 (76.5)	40 (49.4)	0.042
Enjoyment	35 (35.7)	0 (0.0)	35 (43.8)	0.001
Happiness	25 (25.5)	4 (23.5)	21 (25.9)	0.837
Having a free spirit	2 (2.0)	0 (0.0)	2 (2.5)	0.513
Healthy models featured				
Yes	66 (98.5)	6 (100.0)	60 (68.4)	0.752
No	1 (1.5)	0 (0.0)	1 (1.6)	

<sup>a</sup>Includes Cosmopolitan for Latinas, Ebony, Essence, Jet, and Latina, <sup>b</sup>Groups not mutually exclusive. E-cigarette=Electronic cigarette

of the cigarette advertisements also differed by the type of cigarette featured with “being cool” (76.5%) and “fun with friends” (58.8%) predominating in the e-cigarette advertisements compared to “partying” (48.1%), “being cool” (49.4%), and “enjoyment” (43.8%) for traditional cigarettes ( $P < 0.0001$ ).

## DISCUSSION

This study is noteworthy for several reasons. Of particular interest is that only e-cigarette advertisement was found in the youngest age group ( $\leq 21$ ). Magazines with this youngest median readership age contained no advertisements for traditional cigarettes. According to the American Lung Association, the overwhelming majority of adults who smoke initiated smoking at age 21 or younger.<sup>[9]</sup> A study by the United States Department of Health and Human Services indicated that in 2008, 58.8% of new cigarette smokers were under the age of 18 at initiation.<sup>[10]</sup> A Cochrane review concluded that longitudinal studies are consistent in indicating that exposure to advertising and promotional tactics for tobacco products increases the chances that adolescents will initiate smoking.<sup>[11]</sup>

The results indicated that these advertisements convey a delusional message that smoking can be healthy, fun, and enjoyable. One study of advertisements for tobacco appearing in print magazines found that themes related to eliciting an emotional response were most common in conventional cigarette advertising while themes related to using factual information were most common in e-cigarette advertising.<sup>[12]</sup> The difference in frequency of the specified themes between an e-cigarette and traditional cigarette advertisements suggests a targeting to different audiences. E-cigarette advertisements, which were found in magazines with a lower median readership age, portrayed fun with friends and being “cool,” which has been determined to be important to this younger group, especially among women.<sup>[13]</sup> E-cigarette advertisements were found in magazines with a younger, wealthier, and less ethnic audience.

Research has proven that the tobacco industry has employed marketing strategies specifically to entice women of lower socioeconomic status.<sup>[14]</sup> More advertisements for traditional cigarettes than e-cigarettes were found in magazines with median readership household income below the national average. Advertisements featuring traditional cigarettes showed

more themes of partying, enjoyment, and having a free spirit. The minimum median readership age for these advertisements was 32 years. Traditional cigarette advertisements were found in magazines with and older, financially diverse, and more ethnic audience.

## CONCLUSIONS

The limitations of this study include the cross-sectional design and relatively small sample size. Continuing research could be enhanced by analyzing more issues of each magazine. Despite these limitations, these magazines have a collective readership of over 78 million. Given this expansive reach and the complex messages contained in these advertisements, there is an opportunity to use similar marketing tactics for the purpose of being a nonsmoker in mainstream women's magazines. Advertising of conventional cigarettes in women's magazines has been prevalent for decades<sup>[15]</sup> and suggests a tactical approach to recruiting new smokers which was engineered strategically,<sup>[16]</sup> yet there is a paucity of research on this topic from a public health standpoint. With 96 advertisements and 99 magazines, we found an average of 1 advertisement per magazine for either e-cigarettes or traditional cigarettes (mostly traditional). Although there is not an overabundance of advertisements for these products, their presence and influence cannot be ignored. Advertising of e-cigarettes in women's magazines is low at this point. This is a field for future research as spending for e-cigarette advertising has tripled from 2011 (\$6.4 million) to 2012 (\$18.3 million).<sup>[17]</sup> Future studies should focus on specific marketing tactics used to promote e-cigarette use as this product increases in popularity, especially among young women smokers.<sup>[18]</sup>

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## Conflicts of interest

There are no conflicts of interest.

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