



Original article

Just One Click: A Content Analysis of Advertisements on Teen Web Sites

Amy Slater, Ph.D.^{*}, Marika Tiggemann, Ph.D., Kimberley Hawkins, and Douglas Werchon*School of Psychology, Flinders University, Adelaide, Australia**Article history:* Received February 23, 2011; Accepted August 5, 2011*Keywords:* Internet; Advertising; Content analysis; Adolescent development; Body image

A B S T R A C T

Purpose: The current study provides a comprehensive analysis of the content of advertisements on Web sites targeted at adolescents, with a particular focus on the female beauty ideal.

Methods: Advertisements ($N = 631$) from 14 Web sites popular with adolescents were analyzed with respect to product advertised, characteristics of people presented, and emphasis on appearance and the thin beauty ideal.

Results: Although a wide variety of products were featured, advertisements for cosmetics and beauty products were the most frequent. Further, many of the products advertised (e.g., dating services, weight loss products, gambling games) might be considered inappropriate for the intended audience (i.e., teenagers) of the Web site. People who were a part of advertisements were generally female, young, thin, and attractive. Advertisements for games, weight loss products, and cosmetic and beauty products strongly focused on appearance and laid emphasis on the thin ideal.

Conclusions: Like advertisements in mainstream media, advertising on the Internet perpetuates the stereotypical ideal of feminine beauty. Adolescents using the Internet are likely to be exposed to numerous advertisements that reinforce the importance of beauty and thinness, which could have a detrimental impact on how they feel about their bodies.

© 2012 Society for Adolescent Health and Medicine. All rights reserved.

The pervasiveness of advertising in contemporary society is undeniable. Although the primary purpose of advertising is to persuade consumers to buy a product or service, it also plays a critical role in the transmission of contemporary ideals of beauty. For women, the current ideal body depicted in the media is tall, moderately breasted, and extremely thin. Indeed, the level of thinness idealized is such that it is impossible for most women to achieve it by healthy means [1].

Advertising has long been a staple in “traditional” forms of media, such as magazines and television, and an extensive research literature has examined the portrayal of women in these media. Across both television and magazine advertisements, women are frequently portrayed as sexual objects [2,3], with their bodies often used in a decorative way for a variety of products [4]. In addition to being “sexy,” numerous studies have

shown that the typical female body portrayed in magazines and on television is increasingly and unrealistically thin [1,5–10].

Advertising is now also a staple on other forms of “new” media, most notably the Internet. Internet advertising revenue figures for the United States were listed as \$5.9 billion for the first quarter of 2010, a clear indicator that the Internet is now a crucial advertising venue [11]. The portrayal of women in the media is an important public health issue, as unrealistically thin ideals undoubtedly contribute to the widespread body dissatisfaction observed among women and girls. Two recent meta-analyses concluded that “traditional” media exposure (fashion magazines, television) is associated with body dissatisfaction and disordered eating symptomatology [12,13], and that this relationship was stronger for adolescent girls than for adult women [13]. As yet, only one study has examined the impact of Internet exposure and found that it too was correlated with weight dissatisfaction and drive for thinness in adolescent girls [14]. There has been no content analysis of advertisements found on the Internet, which is the primary goal of the current study.

^{*} Address correspondence to: Amy Slater, Ph.D., School of Psychology, Flinders University, GPO Box 2100, Adelaide 5001, Australia.

E-mail address: amy.slater@flinders.edu.au (A. Slater).

Adolescence is a developmental period in which self-consciousness and preoccupation with self-image are heightened [15]. Unfortunately, for girls, the physical changes associated with puberty result in their bodies moving further from the societally prescribed thin beauty ideal, and thus it is not surprising that many experience high levels of body dissatisfaction [16,17]. Importantly, body dissatisfaction has been identified as a consistent risk factor for unhealthy eating practices and eating disorders, which typically have their onset during adolescence [18]. Adolescents are also increasingly engaging with “new” forms of media, in particular, the Internet. For example, one study found that 87.8% of adolescents had access to the Internet at home, and they spent just less than 10 hours per week using the Internet [19]. In 2000, adolescent girls aged 12–17 years were identified as the fastest growing group of Internet users [20]. As such, they are clearly being exposed to large amounts of advertising, and thus it is timely that the messages and images adolescents receive be examined.

In sum, the current study aimed to provide a comprehensive analysis of the content of advertisements on Web sites targeted at adolescents, with a particular focus on the female beauty ideal. Although extensive research has demonstrated the pervasiveness of the female thin beauty ideal in “traditional” forms of advertising, to our knowledge, this is yet to be examined in advertising on the Internet. Thus, the current study had two main research objectives: (1) to document the types of advertisements to which adolescents are exposed on the Internet, and (2) to determine whether Web sites popular with adolescents contain advertisements that emphasize the importance of attractiveness and the thin ideal for female beauty.

Methods

Web site sample

The present study included the 20 most popular Web sites listed in the “teen life” category by the American web-information company, Alexa (San Francisco, CA), in October 2009. Using a web-crawling and a toolbar system to collect data on traffic rankings and site statistics, Alexa provides a ranking of “top sites” in many categories and subcategories.

Web site capture

The screen-capture program *Snagit* (version 9, TechSmith, Okemos, MI) was used to record a screen video of each of the 20 Web sites. This allowed for the capture of the interactive nature of many Web advertisements, and it also meant that coding could occur afterward at the coders’ own pace and that reliability analyses be conducted. The 20 screen videos were captured on 3 consecutive days in October 2009. For each Web site, a screen video was made, which included the homepage, as well as the front-page of each major “tab” or heading identified on the homepage. Across the 20 Web sites, the number of “tabs” ranged from 5 to 15 (mean [M] = 8.8). The resulting videos varied in length from 0:56 seconds to 38:49 seconds (M = 11:11 seconds), depending on the number of advertisements and “tabs” on the Web site.

Advertisement definition

We defined a Web advertisement as “a public promotion of a product or service.” All advertisements occurring on the homepage of each Web site and on the front-pages of each major “tab” were included. Any pages or links that required a login or password were not included in the analysis. Recurring advertisements across “tabs” or Web sites were coded separately each time they occurred. This procedure generated 631 advertisements for analysis.

Coding guidelines

All advertisements were coded independently by two trained coders (one male and one female upper-level psychology students). The coders were provided with coding guidelines that were developed by the authors after an extensive process of reviewing many Web site advertisements and discussing key features. Together, the coders and the first author coded several example advertisements to ensure consistency before the commencement of the formal coding process. The advertisements were coded from the screen videos, which allowed the coders to review the advertisement as many times as necessary (or to pause) to score all attributes. Following coding, all identified conflicts were resolved by discussion of the differences with the first author.

Content variables

All 631 advertisements were coded on the basis of the information visible on the Web site. A subset of advertisements of particular product categories (N = 144) were coded on a number of supplementary features (described later). For these, coding was based on information arrived at by clicking on the advertisement (i.e., going to an “external” Web site) as well as visible on the original Web site.

Advertisement general features. For each advertisement, the coders rated the type of advertisement (text, display, motion) and categorized the product into 1 of 31 product categories devised for the present study (e.g., fashion, games, dating, weight loss). The respective intercoder reliabilities were $\alpha = 1.00$ and $\alpha = .93$.

People. Each advertisement was coded for the number of people present, the gender, and estimated age of any people (child/teen, 18–30, 30–60, >60 years, can’t tell). If more than one person featured in the advertisement, a “central” person was identified and rated on a number of further features. The central person was defined as the person who was either the feature or focus of the advertisement, or the person who was the most prominent in the advertisement (in terms of size and placement). The central person was coded with regard to how much of their body was visible (face only, part(s) of body only, face and part of body, full body), attractiveness (attractive, unattractive, can’t tell), and whether they typified the thin or muscular ideal (yes, no, can’t tell). For the variable “attractiveness,” the coders were asked to consider whether the central person was aesthetically “pleasing” or would he/she be considered appealing to a majority of people. The thin ideal for women was defined as tall and slender, with a small waist and moderate breasts. The muscular ideal for men was defined as those with narrow waist, broad shoulders, and with large or well-defined muscles. Intercoder reliability was $\alpha =$

1.00 for number of people, $\alpha = .98$ for age of the people, $\alpha = .99$ for visible body parts, $\alpha = .99$ for attractiveness, and $\alpha = .83$ for thin or muscular ideal.

Overall appearance focus and emphasis on thin or muscular ideal. Finally, each advertisement was rated for its overall focus on appearance and overall emphasis on the thin or muscular ideal. Possible coding options were none (0), some (1), and a lot (2). The overall focus on appearance and the overall emphasis on the thin or muscular ideal were determined from both the images and the words in the advertisements. An example of an advertisement that was defined as having “a lot” of focus on appearance was for an acne product called “Acne Heroes” that featured an attractive-looking female with the slogan, “get clearer skin now in time for the start of semester.” The thin and muscular ideals were defined as mentioned earlier. An example of an advertisement that laid “a lot” of emphasis on the thin or muscular ideal was for an acai berries supplement, which featured “before” and “after” images of a female torso with the words, “I cut down 10 lbs of stomach fat in just 1 week by obeying this 1 easy diet rule.” Inter-coder reliability was $\alpha = .97$ for appearance and $\alpha = .94$ for thin or muscular ideal.

Additional coding. Advertisements for “cosmetics, toiletries, and beauty”; “fashion”; and “weight loss” products ($N = 144$) were subjected to further coding. Each of these advertisements was “opened” (by clicking) individually and was then coded (yes, no) with reference to changing or enhancing appearance, dislike of any body part(s), desirability to the opposite gender, and the use of a celebrity. Once again (but now using the additional information gained from opening the link), these 144 advertisements were coded on their overall focus on appearance and emphasis on the thin or muscular ideal. Inter-coder reliability was $\alpha = .98$ for appearance and $\alpha = .94$ for thin/muscular ideal.

Results

Description of Web sites, and number and type of advertisements

Table 1 provides a brief description of the 20 most popular teen Web sites identified by Alexa, as well as the apparent target audience of each Web site. This apparent target audience was derived from a variety of sources, including from Alexa, where available; from Quantcast (an audience measurement Web site); and otherwise from inspection of the Web site itself, which included examining media kits, topics, and products portrayed. Target audiences were described as “teens” (age, approximately 13–17 years), “tweens” (age, approximately 9–12 years), and “younger” (age, 8 years and younger).

Table 1 shows that most sites appear to target adolescent girls, with only 8 of the 20 sites targeting boys as well as girls. In addition, most sites seemed to target “teenagers,” although 5 appeared likely to be used by younger girls and “tweens.”

Table 1 also displays the presence or absence of advertisements on each site and the number of advertisements. Of the 20 Web sites, 14 (70%) contained advertisements. For these sites, the number of advertisements present on the homepage ranged from 0 to 10 ($M = 3.93$). The average number of advertisements per site (from the homepage plus each major “tab”) was 45 (range = 1–131). Of the 631 advertisements, 356 (56.4%) were “text only,” 198 (31.4%) were categorized as “display advertisements” (contained some visuals), and 77 (12.2%) were

categorized as “motion advertisements” (contained moving graphics).

Products advertised

The 31 product categories are presented in Table 2, along with the frequencies of advertisements in each category and the sites that featured them. Advertisements for “cosmetics and beauty” were the most frequently occurring, with 15.2% of all advertisements within this category. The next most frequently occurring advertisements were for dating services, education, financial services, weight loss, sex/sexual health and sexuality, and magazines and newspapers.

Overall emphasis on appearance and thin or muscular ideal

Across all advertisements, 453 (71.8%) were rated as having “no” emphasis on appearance, 108 (17.1%) had “some” emphasis, and 70 (11.1%) had “a lot” of emphasis on appearance. For emphasis on the thin or muscular ideal, 513 advertisements (81.3%) were rated as having “no” emphasis, 93 (14.7%) had “some” emphasis, and 25 (4.0%) had “a lot” of emphasis. The percentages of advertisements containing “some” or “a lot” of emphasis on appearance and the thin or muscular ideal are presented in Table 2 by product category. It can be seen that advertisements with the greatest focus on appearance were for games, weight loss, competitions, cosmetics and beauty, magazines and newspapers, and fashion. The emphasis on the thin or muscular ideal was greatest in advertisements for weight loss, followed by games, and cosmetics and beauty.

Characteristics of people featured in advertisements

Of the 275 (43.6%) non “text only” advertisements, 169 (61.5%) featured one or more people. Of these, 102 (60.4%) featured one person, 29 (17.2%) featured two people, and the remaining 38 (22.5%) featured three or more people. Focusing on advertisements that featured one person, we found 86 (84.3%) of them featured a female, 12 (11.8%) featured a male, and it was not possible to tell the gender of the people in the remaining 4 (3.9%) advertisements. With regard to age, 46 (45.1%) advertisements contained a person who was classified as a child or teenager, 17 advertisements (16.7%) showed a person between 18 and 30 years, 3 (2.9%) used a person between 30 and 60 years, 3 (2.9%) contained a person more than 60 years, and 33 (32.4%) featured a person whose age could not be determined. The high percentage of people whose age could not be determined was mostly because only parts of the body (with no face) were shown, or less often, because the people were merely silhouettes or shadows.

The visibility of body parts in the advertisements that featured people was also examined. Most advertisements (63, 61.8%) displayed the face and parts of the person's body, 11 (10.8%) showed the person's entire body, 8 (7.8%) displayed the face of the person only, and 20 (19.6%) showed part(s) of the body only (with no face displayed). With regard to attractiveness, most advertisements (84, 82.4%) featured a person who was deemed attractive, whereas 62 (60.8%) featured a person who typified the thin or muscular ideal. Women were more likely than men to be categorized as attractive (90.2% of women, cf. 50.0% of men) and as typifying the ideal (84.3% of women, cf.

Table 1
Web sites analyzed and number of advertisements

	Name of Web site	Brief description (and assumed target audience)	Advertisements present?	Number of advertisements on homepage	Number of advertisements on homepage and all “tabs”
1	American Girl	Site of American girl dolls company. Offers advice and activities (younger girls)	No	0	0
2	GirlSense	Dress-up games, create fashion boutiques (younger girls)	Yes	4	19
3	Seventeen	Site of magazine of same name. Offers beauty, fashion, health, sex, and dating advice (teen girls)	Yes	5	52
4	Teenspot	Chat-rooms, forums, message boards (teen girls and boys).	Yes	2	25
5	Scarleteen	Comprehensive sex education (teen girls and boys)	Yes	0	72
6	About Teen Advice	Advice on teen issues from articles, chat rooms, and forums (teen girls and boys)	Yes	9	42
7	Claire's Accessories	Retail site offering accessories and fashion (tween and teen girls)	No	0	0
8	Center for Young Women's Health	Provides education, research, and health care information (teen girls and young women)	No	0	0
9	Sugar Scape	Online magazine featuring fashion, beauty, celebrity gossip, boys, games, and advice (teen girls)	Yes	2	24
10	CosmoGirl	Online magazine featuring fashion, beauty, and relationship tips and advice (teen girls)	Yes	7	70
11	Sex, Etc	Provides sexual health information (teen girls and boys)	Yes	2	24
12	The Student Centre	Online community for high school and college students. Provides information and entertainment (older teens and young adults, girls and boys)	Yes	7	131
13	Being Girl	Advice about puberty and personal hygiene (teen girls)	No	0	0
14	Beautiful Hairstyles	Site about hairstyles featuring celebrity gallery (teen girls)	Yes	3	30
15	What's Her Face	Web site based on Mattel's “What's Her Face” doll line (younger girls)	No	0	0
16	Connexions Direct	Offers advice on education, careers, housing, money, and relationships (teens and young adults, girls and boys)	Yes	1	1
17	gURL	Online magazine, provides advice as well as games and gossip (teen girls)	Yes	3	23
18	Girls' Life Magazine	Online magazine, provides advice as well as entertainment (tween and teen girls)	Yes	10	111
19	GovTeen.com	Includes information on puberty, forums, and chat rooms (teen girls and boys)	No	0	0
20	Kiwibox.com	Online magazine and social network featuring games, articles, and gossip (teen girls and boys)	Yes	0	7

42.9% of men). Overall, thin, attractive females who were younger than 30 years were the most common person featured.

Further analysis of fashion, cosmetics, and weight loss advertisements

Advertisements for fashion, cosmetics and beauty, or weight loss products ($N = 144$) were subjected to further analysis. Table 3 details the features of these particular product advertisements. Just under half ($N = 67$, 46.5%) of the advertisements were classified as having “a lot” of focus on appearance, and a quarter ($N = 36$; 25.0%) were classified as having “some” focus on appearance. Relatedly, 31 advertisements (21.5%) were judged to have “a lot” of emphasis, whereas 49 (34.0%) had “some” emphasis on the thin or muscular ideal. Examination of the three products categories separately showed that 25.0% of fashion advertisements, 38.5% of cosmetic advertisements, and 75.0% of weight loss advertisements laid “a lot” of emphasis on appearance, whereas

8.3% of fashion advertisements, .0% of cosmetics advertisements, and 83.3% of weight loss advertisements laid “a lot” of emphasis on the thin or muscular ideal.

Table 3 also displays the frequencies and percentages of references to changing or enhancing appearance, dislike of body part(s), desirability to the opposite gender, and the use of a celebrity. Unsurprisingly, all the advertisements for weight loss techniques ($N = 36$, 100.0%) referred to changing or enhancing appearance, more than half ($N = 24$, 66.7%) specifically referred to dislike of a body part or parts, and just under half ($N = 15$, 41.7%) featured a celebrity and implied that the product would help increase desirability to the opposite gender.

Discussion

The current study aimed to provide a comprehensive analysis of advertisements found on Web sites popular with adolescents. The average number of advertisements across the 14 Web sites

Table 2
Advertisements by product category

Product category	Number of advertisements	%	Sites that feature	Focus on appearance		Emphasis on thin/muscular ideal	
				Some (%)	A lot (%)	Some (%)	A lot (%)
Cosmetics and beauty	96	15.2	3, 5, 6, 9, 10, 14, 17, 18	30.2	21.9%	15.6	4.2
Dating	47	7.4	3, 4, 6, 10, 12, 18, 20	36.2	2.1	27.7	.0
Education	42	6.7	3, 4, 5, 6, 11, 12, 16, 18	.0	.0	.0	.0
Financial services	41	6.5	2, 3, 6, 12, 14	.0	.0	.0	.0
Weight loss	36	5.7	3, 4, 5, 6, 12, 14, 18	30.6	47.2	38.9	52.8
Sex, sexual health, and sexuality	36	5.7	5, 11, 17	.0	.0	.0	.0
Magazines and newspapers	32	5.1	2, 3, 6, 10, 18	81.3	18.8	59.4	.0
Books	30	4.8	3, 5, 6, 10, 17, 18	13.3	6.7	20.0	.0
Alternative remedies	30	4.8	5, 6, 12, 18	3.3	.0	.0	.0
Games	29	4.6	2, 3, 4, 6, 9, 10, 12, 18	3.4	51.7	41.4	6.9
Search engines	20	3.2	5, 6, 10, 18	.0	.0	.0	.0
Competitions	20	3.2	3, 6, 9, 10, 12, 18	5.0	30.0	5.0	.0
Shopping (general)	15	2.4	2, 3, 5, 10, 14, 18	.0	.0	.0	.0
Telecommunications	13	2.1	2, 9, 12	.0	.0	.0	.0
Advertising/marketing	12	1.9	3, 4, 12, 18	.0	.0	.0	.0
Fashion	12	1.9	3, 10, 12, 14, 18	41.7	16.7	16.7	.0
Food and beverage	11	1.7	4, 5, 6, 12, 18	.0	.0	.0	.0
Technology products and accessories	9	1.4	2, 5, 12, 14, 18	.0	.0	.0	.0
Travel	9	1.4	3, 4, 6	.0	.0	.0	.0
Media	8	1.3	9, 17	50.0	.0	50.0	.0
Sportswear and accessories	7	1.1	3, 12	57.1	.0	57.1	.0
Astrology/magic, etc.	7	1.1	6, 18	.0	.0	.0	.0
Public service, announcements/government initiatives	6	1.0	3, 18, 20	.0	.0	.0	.0
Health and medicine	5	.8	2, 5, 12	.0	.0	.0	.0
Mental health	4	.6	6, 10	.0	.0	.0	.0
Automotive	3	.5	2, 4, 18	.0	.0	.0	.0
Toys	3	.5	9, 18	33.3	.0	33.3	.0
Charity/donations/NFP	2	.3	6, 20	50.0	.0	.0	.0
Music	2	.3	9	100.0	.0	100.0	.0
Other/miscellaneous	44	7.0	2, 3, 4, 5, 6, 12, 14, 18	2.3	.0	.0	.0

that featured advertisements (when each of the major “tabs” was opened) was just more than 45. It is likely that adolescents visiting these Web sites will navigate to some or all of these parts of the Web site and thus will be exposed to a very large number of advertisements.

Although the number of advertisements featured on the Web sites may appear comparable with the quantity of advertisements found on television and magazines, there are some important differences. Unlike magazine advertisements, Internet advertising can be interactive in nature, with moving graphics a common feature. Unlike television advertisements that usually appear in discreet blocks that interrupt the program, Internet advertisements appear “side by side” with the content or indeed “pop up” and dominate or obscure the Web page content. Further, on some Web sites examined in this study, it was some-

times difficult to distinguish advertising from Web site content. Thus, although magazine and television advertisements may be avoided (e.g., by skipping pages or muting the sound), Internet advertising seems to be virtually impossible to avoid. Thus, it seems likely that Internet advertising will have a stronger impact on consumers than more traditional advertising.

The advertisements examined in the current study promoted a wide variety of products, but by far, the most frequently advertised were cosmetic and beauty products. This is consistent with a content analysis of teen magazines, which revealed that beauty care products dominated the advertising space [21]. Other commonly occurring advertisements were for dating, educational and financial services, weight loss products, and products relating to sex, sexual health, and sexuality. It is easy to argue that many of the most frequently advertised products and services

Table 3
Features of cosmetic, fashion, and weight loss advertisements

Feature	Cosmetics and beauty (N = 96)	Fashion (N = 12)	Weight loss (N = 36)	Total (N = 144)
Focus on appearance				
Some (%)	21.9	50.0	25.0	25.0
A lot (%)	38.5	25.0	75.0	46.5
Emphasis on thin ideal				
Some (%)	40.6	33.3	16.7	34.0
A lot (%)	.0	8.3	83.3	21.5
Reference to changing or enhancing appearance N (%)	47 (49.0%)	1 (8.3%)	36 (100.0%)	84 (58.3%)
Reference to dislike of any body part N (%)	15 (15.6)	0 (.0%)	24 (66.7%)	39 (27.1%)
Use a celebrity N (%)	19 (19.8%)	4 (33.3%)	15 (41.7%)	38 (26.4%)
Reference to desirability to opposite gender? N (%)	0 (.0%)	0 (.0%)	15 (41.7%)	15 (10.4%)

are not suitable for the intended audience of the Web sites, consistent with an earlier finding that 25% of advertisements on sites popular with children were for products and services unsuitable for children [22]. Although some of these advertisements may appear irrelevant for teenagers (e.g., credit cards advertisements), others may be potentially harmful. For example, weight loss advertisements constitute 5.7% of all advertisements, somewhat more than in a previous analysis of teen magazines [21]. Here, weight loss advertisements were found on Web sites clearly targeting teenage girls and also on a Web site aimed at younger (10–15 year old) girls. The most common weight loss advertisement on this Web site read, “1 tip of a flat belly: Cut down 3 lbs of your belly every week by using this 1 weird tip.” Such an emphasis on appearance and thinness may cause young girls to develop unhealthy attitudes toward their bodies and eating habits.

More than 60% of the nontext advertisements featured at least one person. The people featured were generally female, young, thin, and attractive, in line with research examining the portrayal of women in television and in magazines [1,10]. It appears clear that the conventional beauty ideal portrayed in the “traditional” media is also perpetuated in Internet advertising. Interestingly, nearly 20% of adverts that contained a person displayed only body parts (without the person’s head and face). This practice of focusing on specific parts of the body has been referred to as “body-ism,” and is illustrated in Figure 1 in a weight loss advertisement. The equivalent advertisement targeting males showed a male face as well as his torso. Indeed, other studies have demonstrated that the practice of “body-isms” is more often used for females than for male models [4]. Figure 2 displays an advertisement for a game, *Evony* (an online game set in medieval times), in which there is little doubt that the women’s breasts are the focus of the advertisement. The use of women’s bodies solely for decorative purposes may have negative consequences in terms of the societal objectification of women, as well as for how women and girls feel about their own bodies [23].

The second major purpose of the current study was to investigate the extent to which advertisements on teen Web sites



Figure 1. Example of weight loss advertisement (female). For a color version the reader is referred to the web version of this article.

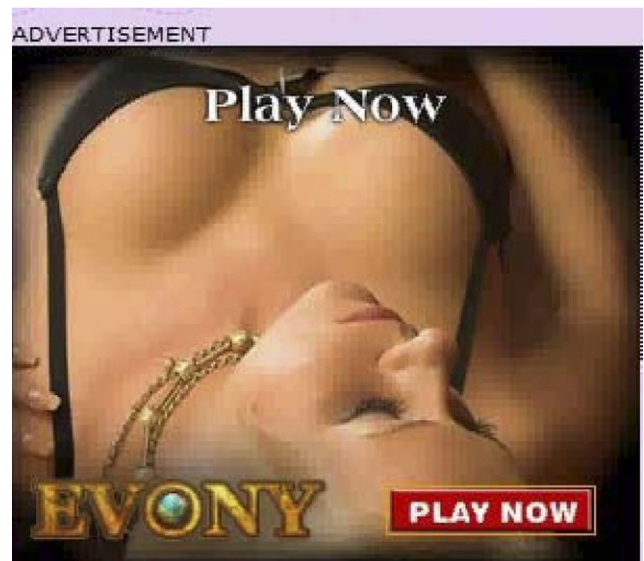


Figure 2. Example of a game advertisement. For a color version the reader is referred to the web version of this article.

emphasized attractiveness and the thin ideal. Although across all advertisements this was not substantial, it was noteworthy for particular product categories. Although it was unsurprising that most of the advertisements for weight loss and beauty products had a strong emphasis on attractiveness and thinness, the high ratings for some of the other product categories were more unexpected. For example, more than half of the advertisements for games were rated as laying “a lot” of emphasis on appearance and just under half laid at least “some” emphasis on the thin ideal.

When further analyzing the advertisements for weight loss, cosmetics and beauty, and fashion products, the focus on appearance and emphasis on thinness increased substantially. In addition, Web sites for weight loss frequently referred to dislike of body parts, implied that their product would enhance one’s desirability to the opposite gender, and had used a celebrity to promote their product. One-third of the fashion advertisements that were examined also made use of a celebrity.

Although further research is needed to fully understand the implications of Internet advertising on adolescent well-being, the current findings have a number of practical implications. First, parents may be unaware of the amount and type of advertising found on Web sites aimed at adolescents, and may benefit from education and strategies for how to provide active supervision of their adolescent’s Internet use. At a broader level, policy makers could usefully limit the quantity of advertisements allowed on Web sites aimed at children and adolescents, and could enforce the clear labeling of advertisements. Compulsory guidelines that ensure that advertised products are age-appropriate, and that the content of advertisements are appropriate for the developmental maturity of the intended audience would also be valuable. Future research might usefully examine the extent to which young people attend to Internet advertising, either through the obtaining of accurate “click-through rates” or through the use of eye-tracking software, as well as the impact of such advertising on young people’s body satisfaction and self-esteem.

Acknowledgments

This research was funded by an Australian Research Council Discovery Project (DP0986623) awarded to M.T.

References

- [1] Owen PR, Laurel-Seller E. Weight and shape ideals: Thin is dangerously in. *J Appl Soc Psychol* 2000;30:979–90.
- [2] Lindner K. Images of women in general interest and fashion magazine advertisements from 1955 to 2002. *Sex Roles* 2004;51:409–21.
- [3] Stankiewicz JM, Rosselli F. Women as sex objects and victims in print advertisements. *Sex Roles* 2008;58:579–89.
- [4] Hall CC, Crum MJ. Women and “body-isms” in television beer commercials. *Sex Roles* 1994;31:329–37.
- [5] Garner DM, Garfinkel PE, Schwartz D, Thompson M. Cultural expectations of thinness in women. *Psychol Rep* 1980;47:483–91.
- [6] Seifert T. Anthropomorphic characteristics of centerfold models: Trends towards slender figures over time. *Int J Eat Disord* 2005;37:271–4.
- [7] Spitzer BL, Henderson KA, Zivian MT. Gender differences in population versus media body sizes: A comparison over four decades. *Sex Roles* 1999;40:545–65.
- [8] Sypeck MF, Gray JJ, Etu SF, et al. Cultural representations of thinness in women, redux: Playboy magazine's depiction of beauty from 1979 to 1999. *Body Image* 2006;3:229–35.
- [9] Wiseman CV, Gray JJ, Mosimann JE, Ahrens AH. Cultural expectations of thinness in women: An update. *Int J Eat Disord* 1992;11:85–9.
- [10] Greenberg BS, Eastin M, Hofschire L, et al. Portrayals of overweight and obese individuals on commercial television. *Am J Public Health* 2003;93:1342–8.
- [11] Interactive Advertising Bureau. Internet Advertising Revenue Hits \$5.9 billion in Q1 '10, Highest first-Quarter Revenue Level on Record, 2010. Available at: http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/pr-051310.
- [12] Grabe S, Ward LM, Hyde JS. The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychol Bull* 2008;134:460–76.
- [13] Levine MP, Murnen SK. Everybody knows that mass media are/are not [pick one] a cause of eating disorders: A critical review of evidence for a causal link between media, negative body image and disordered eating in females. *J Soc Clin Psychol* 2009;28:9–42.
- [14] Tiggemann M, Miller J. The Internet and adolescent girls' weight satisfaction and drive for thinness. *Sex Roles* 2010;63:79–90.
- [15] Harter S. Causes and consequences of low self-esteem in children and adolescents. In: *Self-Esteem: The Puzzle of Low Self-Regard*. New York, NY: Plenum Press, 1993:87–116.
- [16] Slater A, Tiggemann M. Body image and disordered eating in adolescent girls and boys: A test of objectification theory. *Sex Roles* 2010;63:42–9.
- [17] Tiggemann M. Television and adolescent body image: The role of program content and viewing motivation. *J Soc Clin Psychol* 2005;24:361–81.
- [18] Stice E. Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychol Bull* 2002;128:825–48.
- [19] Subrahmanyam K, Lin G. Adolescents on the net: Internet use and well-being. *Adolescence* 2007;42:659–77.
- [20] Rickert A, Sacharow A. It's a Woman's World Wide Web: Women's online behavioural patterns across age groups and lifestyles, 2010. Available at: <http://www.rcss.ed.ac.uk/sigis/public/backgrounddocs/womenontheweb2000.pdf>.
- [21] Evans ED, Rutberg J, Sather C, Turner C. Content analysis of contemporary teen magazines for adolescent females. *Youth Soc* 1991;23:99–120.
- [22] Nairn A. “It does my head in . . . buy it, buy it, buy it!” the commercialization of UK children's Web sites. *Young Consumers* 2008;9:239.
- [23] Tiggemann M, McGill B. The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *J Soc Clin Psychol* 2004;23:23–44.