Body Image, Eating Disorders, and the Media

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Adolescence is a time of tremendous change in physical appearance as both boys and girls move through puberty and become accustomed (or not) to their new body shape and size. Thus, body image is a major concern of teenagers. “Adolescents’ development of their closely linked body image and self-concept can be particularly challenging because of the diverse, rapid, and significant changes that are heightened during this period.”\textsuperscript{1} Conventional wisdom maintains that dissatisfaction with body image seems to increase among female adolescents and decrease among males through the teen years,\textsuperscript{2} but recent community surveys suggested that almost half (46\%) of teen girls and even a startling 26\% of boys are unhappy with their body shape and size; only 12\% and 17\%, respectively, reported liking their appearance.\textsuperscript{3,4} Obviously, this is alarming, because “body dissatisfaction is associated with high levels of subjective distress, unhealthy weight control behaviors and extreme methods of altering appearance, such as cosmetic surgery and steroid use.”\textsuperscript{5}

WHAT IS BODY IMAGE, AND HOW IS IT CONSTRUCTED?

Body image is a merging of one’s outer appearance with perceptions derived from personal and cultural factors\textsuperscript{1}; body image is a “multidimensional construct that is influenced by biological, psychologic, and social factors.”\textsuperscript{1} Thus, an adolescent constructs her or his body image in many ways, incorporating input from family, peers, and media.\textsuperscript{6} Pressure to emulate the Western body ideal, ultra thin for women and muscular for men, comes from parents, friends, and the media (see Fig 1).

Family influences play a major role in adolescent weight concerns. A prospective cohort study of 6770 girls and 5287 boys aged 9 to 14 years revealed that parents...
influenced the development of concerns about weight and the initiation of weight-control practices. An Internet-based eating-disorder–prevention program conducted with 455 college women found that parental negative comments about weight or shape was associated with lower self-esteem. Overweight teenagers are teased more often and are at greater risk of dissatisfaction with their bodies. Whatever the source of the comments, negative or teasing statements about weight “contribute to the development of excessive weight and body shape concerns, which is a risk factor for the development of eating disorders.”

Teens believing that weight status is important to their mothers were more likely to think frequently about being thinner and about dieting in a large cross-sectional study of 11- to 18-year-old girls and boys. Overt messages from parents encouraging their daughters to lose weight predict an increased drive for thinness and higher likelihood of body dissatisfaction; direct messages were more influential than parental modeling of dieting behaviors.

In adolescence, the primacy of peers is notable as teenagers move from a more family-centered sphere to one dominated by friends. Peers have shown influence on body image in some studies, but in others have shown negligible impact. In a large prospective study of almost 7000 girls aged 9 to 14 years, Field et al found peers to be highly influential on a teenager’s desire to lose weight; if a peer placed emphasis on thinness, purging or using laxatives to lose weight was more likely. Another study concluded that peer practices were predictive of an adolescent developing an eating disorder. For teenagers, acceptance by the peer group is important, and 1 study found weight-control practices to be related to those of peers, as well as being influenced by their mothers’ dieting behaviors. Shroff and Thompson found peer and media influences to exceed parental influence in terms of body image. One study revealed that friends and family give messages to boys to increase musculature.
and to girls to encourage weight loss. However, messages to boys decrease over time, whereas those to girls increase.\textsuperscript{18}

The media (discussed in more detail later) clearly exert influence on body image (see Fig 2). Perhaps media, functioning as a “superpeer,”\textsuperscript{19} define the look and body shape to attain via images available to all teenagers in many venues,

Fig 2. People magazine.
whether magazines, television programs, or film. “Hey, kids, this is the way we all should look!” Teenagers today face a growing discrepancy between their bodies and mediated role models.

Obesity in all age groups is increasing at alarming rates; 17% of American adolescents are now overweight or obese (see Fig 3). Models used to weigh 8% less than the average woman; they now weigh 23% less.

Borzekowski and Bayer introduced the concept of “goodness of fit’ between self-evaluation of one’s body, one’s expectations for the physical self, and the perceived evaluations of others.”1 Teen girls face a discrepancy between the realities of their own bodies and those they see in the media or reflected in the expectations of friends and family members. By the “tween” or early-adolescent years, fully 20% to 50% of girls feel too fat and 40% consider themselves overweight, yet many of these girls are normal by medical standards.1,22,23

Fig 3. The prevalence of obesity continues to increase in the United States. Among adults, more are overweight or obese than normal weight. (Reproduced with permission from M. J. Hogan, V. C. Strasburger / Adolesc Med 19 (2008) 000–000.)
WHY IS BODY IMAGE IMPORTANT?

Adults, including parents, pediatricians, and other adults, want adolescents to have a healthy body image. Eating disorders, including anorexia and bulimia, and obesity seem to be associated with a disordered body image in adolescents. All are on the rise. Less prevalent but also alarming is the increase of those seeking cosmetic surgery to correct perceived flaws. A cross-sectional study of >6200 girls and >4200 boys revealed use of potentially harmful supplements and anabolic steroids as other dangerous complications of disordered body image. In a study of 16 862 children and young teenagers, contemplation of smoking initiation was positively related to concerns about weight: “Adolescents are susceptible to society’s emphasis on slenderness and may initiate smoking as a weight control measure.”

Adolescents confront daunting tasks as they move through puberty toward adulthood. Establishing a healthy, positive view of one’s body is key to a successful transition. Researchers have found a wide array of harmful emotional outcomes associated with negative body image, including depression and poor self-esteem.

HOW DO TEENAGERS USE MEDIA?

Today’s adolescents live in a world surrounded and defined by media. They are heavy users of media (see Fig 4), many of which proffer unhealthy and unrealistic body images for adolescent viewers. Television, Internet, music videos, magazines, and movies all feature unrealistic, unattainable icons of beauty and desirability.

Traditional media, specifically television, occupies less time in teenagers’ lives today, supplanted largely by video games and the computer. Interactive sites such as Facebook and MySpace and the entertaining, often scintillating YouTube draw teen eyes and compete for leisure hours. Interactive sites allow teenagers to define themselves in a comfortable, positive fashion and communicate with friends. Interestingly, by posting photographs of themselves, adolescents put their desired look, face and body, on their Facebook page, so defining their chosen image.

Magazines aimed at female teenagers are extremely popular and have increased in number and availability. An estimated 33 million adolescents spend more than $175 million annually on these magazines; content heavily emphasizes clothing and fashion, appearance, and dating. Teen-oriented magazines draw readers into articles and photographs, and some believe that the ultra-thin, ideal images in magazines are more accessible and believable to teenagers than those in other media, including television (see Fig 5).
DO THE MEDIA AFFECT BODY IMAGE?

The research says “yes.” Media images and messages offer powerful cues about how we need to look, what we need to eat, and what we must buy. Whether on the television, movie screen, or the front page of teen-focused magazines or People, we see graphically which bodies are beautiful, which shapes are “hot,” and who is successful or not (see Fig 6). We suffer through headlines about which young star is admitted to an eating-disorders program and who looks best in a bikini this season. For adolescents grappling with emerging pubertal changes, comparing themselves to the stars of stage and screen is unavoidable.

One of the most important developments in communications research over the past decade has been interest in examining the role that media play in the health of women, specifically body image and eating disorders. The British Medical Association issued a landmark report on this subject (see Fig 7), and other experts have contributed to knowledge in this area.

Almost 30 years ago, Kaufman examined eating behavior on prime-time television. In a content analysis, she determined that television characters were not happy in the presence of food. Food was rarely used to satisfy hunger but, rather, to bribe others or facilitate social interactions. Her conclusion was that television is obsessed with thinness: 88% of all television characters had a thin
Fig 5. Cover of Seventeen magazine.
Fig 6. Four covers of mainstream magazines.
Fig 7. Cover of a British Medical Association report.
or average body build; obesity was confined to middle or old age; and being overweight routinely provided comic ammunition.\textsuperscript{38,39} More-recent researchers have found that shows appealing to adolescents feature characters below average in weight 94\% of the time.\textsuperscript{40}

Certainly, the combination of ubiquitous commercials for foods (mostly unhealthy) and advertising and programming emphasis on female beauty and thinness predictably lead to confusion and dissatisfaction for young viewers.\textsuperscript{34,41–44} Others have suggested that situation comedies add to this dilemma, because thin female characters receive significantly more positive verbal comments from male characters than do heavier characters.\textsuperscript{45,46} A 1999 study reinforced the primacy of the thin-ideal female in television programs that are popular with young viewers. The thin females won positive comments from male characters; but the more female characters were dieting, the more they made negative comments about other women’s bodies and weight, consistent with low self-esteem.\textsuperscript{47}

Historically, there has been an association between advertising and disordered body image and disordered eating. Interestingly, as advertisements for diet-food products increased on television between 1973 and 1991, a rise in eating disorders occurred as well.\textsuperscript{38} Similarly, studies have revealed that the increase in thin models and actresses from 1910 to 1930 and 1950 to 1980 was accompanied by an increase in disordered eating.\textsuperscript{49} Kilbourne\textsuperscript{21} wrote that the American diet industry tripled in the 1990s, from $10 to $36 billion per year. During the same decade, women’s magazines featured a dramatic increase in articles about dieting and exercise, far more than in men’s magazines.\textsuperscript{50,51} During this time, magazines aimed at adolescent girls more than tripled, and a majority of 15- to 18-year-old girls reported reading these magazines daily.\textsuperscript{52} Studies have shown that girls reading these fashion magazines compare themselves to models in the ads and articles and have more negative feelings about their own appearances.\textsuperscript{26,53,54}

“Whether this is cause and effect or simply correlational is arguable.”\textsuperscript{34} The connection between the diet industry and the real world is complicated. Kilbourne illustrated this with the example of a WeightWatchers ad showing a piece of pie with the caption: “Feel free to act on impulse.” Why would WeightWatchers encourage indulgence in Boston cream pie? It is “[b]ecause it is in their best business interest to fatten people up and then want them to diet or fail to lose weight so that their revenues will continue to grow.”\textsuperscript{21} A quick perusal of popular women’s magazines at the grocery store check-out counter gives testament to the dilemma: a cover boasts a story about the latest fad diet in big letters, while just beneath is a story about the 10 best, decadent chocolate desserts of the year, followed by a sure-fire way to tighten your abs and glutes in preparation for the summer season at the beach. The irony cannot be missed.

The ideal of female beauty in America continues to shrink steadily. Researchers studied Playboy centerfolds and Miss America contestants over a 10-year period
and found that the body weight of these women was 13% to 19% below average. The BMI of aspiring Miss America contestants has declined from 22 in 1922 to 18 in 1999, the latter BMI indicating undernutrition. Almost 20 years ago, adolescent girls described their “ideal girl” as an almost impossible 5 feet 7 inches tall, weighing 100 lb, and with long blond hair and blue eyes (see Fig 8).

“Evidence is increasing that there are tremendous pressures on today’s girls and young women to try to attain body shapes that are unhealthy, unnatural, and dictated by media norms.” Many scholars believe that this “internalization of the thin-ideal body image” has resulted in females in America being increasingly dissatisfied with their bodies, possibly leading to eating disorders.

A 2004 study revealed that even movies aimed at a young audience, Cinderella or The Little Mermaid, for example, contain body-image–related themes. A disturbing study in Australia revealed that of 128 children aged 5 to 8 years, many wanted to be thinner by 6 years of age. In 2007, Australian researchers tested 265 primary school girls to determine if the importance of appearance relates to body dissatisfaction. They found that exposure to media and peer influence were negatively related to body esteem.
Is There Solid Research That This Actually Occurs?

A growing body of literature indicates an association between media portrayals of the ideal female body and disordered body image in viewers. As many as half of normal-weight adolescent girls consider themselves overweight and have tried to lose weight. All media subtypes (television, film, magazines, music videos) portray female characters with impossibly thin bodies, which puts pressure on adolescents to conform or be dissatisfied with their own looks (see Fig 2).

Popular television comedies, including *Ally McBeal* and *Friends*, soap operas (popular with adolescent girls), music videos, and films aimed at teenagers may expose viewers to potential role models who actually suffer from eating disorders themselves. In a critical twist, overweight female characters tend to be criticized by male characters, whereas overweight male characters may make fun of themselves but do not engender negative comments from others. A study of 837 ninth-grade girls found that the number of hours watching music videos was associated with their feelings about the importance of appearance and their weight concerns. Similarly, girls watching a music video that emphasized appearance had more body dissatisfaction than those watching a neutral video. Clay et al found that exposing young girls to thin or average-sized models in magazines lowered self-esteem and body satisfaction. The authors of 3 meta-analyses examined the association between media exposure and body dissatisfaction; only the study reported in ref revealed no association.

In What Ways Might Sociocultural Factors, Including Media Exposure, Play an Important Role in Body Image?

There are 4 key components to the theory that media images and messages do influence the body image of young viewers.

1. Although the “ideal” woman has gotten increasingly thinner over the past 2 decades, the real woman has actually gotten heavier.

2. Thinness has become associated with social, personal, and professional success.

3. Especially for teen girls, the thin look has become normative, which could relate to the superpeer concept.

4. Adolescent girls and grown women have been led to believe that thinness can actually be attained easily.

In 1997, Signorelli conducted a content analysis of girls in the media and made several relevant observations. Teen-oriented shows featured advertisements using beauty as a product appeal in 56% of ads targeting females and 3% of ads
targeting male viewers. Fully 56% of female characters in movies had their looks remarked on, and 70% of girls wanted to look like a television character (compared with 40% of boys). Half of those girls did something to change their appearance as a result. “Women are often caught up in the trap of living in a culture in which they are expected to be the objects of the male gaze, but then feel the need to compare favorably with ultra-thin role models.”

Similarly, 2 literature reviews concluded that female viewers exposed to ultra-thin characters in the media are prone to idealize and internalize these models and, thus, become dissatisfied with their own bodies: this is “thin internalization.” Levine and Harrison built on the social-comparison theory, whereby media exposure leads to dissatisfaction with a viewer’s body, a drive to be thin, and, ultimately, down a pathway to disordered eating. This review revealed small but positive associations between media exposure and impact on body image. The social-comparison theory asserts that individuals tend to evaluate themselves through comparisons with others, maybe either upward (comparing to those considered superior or, possibly, thinner) or downward (the other is perceived as being inferior). In the case of media, with ultra-thin and glamorous characters, comparisons for the average viewer would be upward: the models and celebrities in the media are quite different from the viewers’ self-appraisal, which leads to feelings of dissatisfaction and lower self-esteem. “Our upward social comparisons could compel us to eat in a disordered fashion and strive to be thin.”

In a recent review, Cohen reviewed the current literature and examined the social-comparison theory but also introduced the relevance of Gerbner’s cultivation theory in the context of body dissatisfaction. The cultivation theory simply “predicts that people who are more exposed to greater degrees of television will have attitudes that are more reflective of media realities, and less reflective of real-world social realities.” The author gave the apt example of an ultra-thin woman on television consuming junk food and not exercising: “incomplete information about the link between diet and fitness are communicated with the viewer.” She concluded, “Media exposure does seem to have an impact on body dissatisfaction, disordered eating, and drive for thinness.” The relationship is stronger for magazines than for television, both of which are “thin-depicting” media, but the former is a more engaging pastime.

One study of college women showed that those who were concerned about their body shape judged thin celebrities as thinner than they were; however, those comfortable with their body shape judged the celebrities accurately. Field et al. conducted a series of studies using a large database of 6770 adolescent girls aged 9 to 14 years. Girls wanting to look like characters on television, in movies, or in magazines were twice as likely to be concerned about weight, become constant dieters, or engage in purging behaviors. A longitudinal study revealed that television viewing predicted thinner ideal body shapes and disor-
dered eating 1 year later among 257 preteen girls, and a recent study of 11,000 adolescents, both male and female, found a concerning correlation between wanting to look like media role models and being more likely to use anabolic steroids or unproven protein supplements.

A decade ago, *Seventeen, Teen,* and *YM* enjoyed readerships of >6 million young females; subsequently, the teen-magazine market exploded, and *Teen People, Elle Girl, Teen Vogue,* and others appeared. All of these magazines define the look that is desirable, dictating that thin is good, thin with large breasts and small hips being best. One adolescent stated: “Everybody feels like they are not good enough, not pretty enough, not skinny enough... Every time you open a magazine you always see beautiful people... you have to look good to be a good person.” Several studies have found a robust association between reading teen-oriented magazines and weight concerns and/or symptoms of eating disorders in girls. In a study of 548 middle and high school girls, Field et al found most of them to be dissatisfied with their body shape; 69% believed that their ideal body shape was influenced by magazines or other media images. The more frequently girls read fashion magazines, the higher the likelihood they had been on diets or started an exercise program to lose weight. The study authors concluded that “print media could serve a public health role by refraining from relying on models who are severely underweight and printing more articles on the benefits of physical activity.”

An innovative study of college women found association between reading fashion magazines and symptoms of body dissatisfaction. Young women in a waiting room were provided either 4 fashion or 4 news magazines before answering a survey about their body image and dieting practices. Those who chose a fashion magazine reported more dissatisfaction with their weight, guilt associated with eating, and greater fear of getting fat. An ongoing meta-analysis of >20 experimental studies indicated that exposure to images of thin models causes an increase in a young woman’s negative feelings about her own body.

Surveys have revealed, despite the participants’ actual body weight, exaggerated fears of obesity among adolescents. Viewers trust media, especially television, but media portrayals of the ideal woman are distorted, especially with today’s rising rates of overweight and obesity. With few exceptions, notably Rosanne Barr years ago and Queen Latifah more recently, there is a dearth of successful, charismatic overweight female media role models.

In 1985, the BBC banned televising beauty pageants, labeling them “an anachronism.” In the world of high fashion, the use of ultraskinny models is being scrutinized, and in some situations models have been banned from the fashion runway. American media seem obsessed by the ups and downs the weight of popular film and television stars and models; “whether this degree of publicity about actresses’ (and models’) body weights is healthy or
harmful remains to be tested.” Everyone follows Oprah’s struggles with weight vicariously.

Is Everyone Susceptible?

Body image and dissatisfaction with one’s body vary across ethnic and racial groups in America. Specifically, black female adolescents are “more tolerant of adiposity,” and Asian American college-age adolescents are less so. However, black young women who are dissatisfied with their body image may be at increased risk for unintended pregnancies and sexually transmitted infections. One study revealed that ethnic identity did not mitigate the relationship between depression and body dissatisfaction for females, and a 2006 study suggested little difference in body dissatisfaction among women self-identifying as black, Asian American, or Hispanic.

There has been little research on factors of personal characteristics that may enhance body satisfaction. Some studies have suggested that positive relationships with parents or feeling supported by surrounding social network are likely buffers. Presnell et al speculated that “theoretically, cognitive factors such as attributional style or perceived control, which have been linked to depression and anxiety, may be associated with body dissatisfaction.” More research on resilience and protective factors for positive body image is needed.

Similar to other harmful effects of media, including violence, heavy viewers and users of the plethora of media types may be at greater risk for body dissatisfaction simply because they see more images. More research is needed on vulnerability: which children and teenagers are at greater risk of internalizing media images and messages?

Is It Just Girls, or Boys, Too?

Although the bulk of research has involved females, males are clearly not immune to mediated images and messages. More research on male children and teenagers is needed. One study of boys’ action figures (often featured on television shows) between 1964 and 1998 found that the characters all had smaller waist sizes with ballooning chests and biceps. Boys are more interested in bulking up, not weight loss. In a study of >10 000 adolescents, Field et al found that 8% of girls and 10% of boys reported using substances to enhance muscle mass, appearance, or strength. Both genders were more likely to use substances if influenced by the appearance of models in the media: “concern with muscle definition and media images may lead young people to use unhealthful products to achieve a more desired physique.” Boys seemingly possess sociocultural ideas that are different from young women. However,
the increasing epidemic of overweight and obesity in all age groups and both genders may change these observations. The heavily publicized use of anabolic steroids in baseball and other sports venues may influence adolescents, particularly young men. A 1999 review revealed that young males are often dissatisfied with their bodies, not because they are not thin enough but because they want to be both lean and muscular at the same time. Some boys are concerned about weight loss; “there is evidence that boys are divided between those who desire to lose weight and those who wish to gain weight and musculature.”101 Girls uniquely strive for thinness, but “there may be 2 pathways to body dissatisfaction among boys—weight concerns and muscularity concerns.”101 However, both genders aim toward a media-dictated body-image ideal.

DO THE MEDIA PLAY A ROLE IN EATING DISORDERS?

As startling as the research discussed above seems, the existing studies do not yield a simplistic “yes” or “no” answer to the question of whether media exposure causes eating disorders. “Probably the most conservative view is that there is now considerable evidence that the media influence body image and self-dissatisfaction among young girls and women”34 (see Fig 9). At the same time, several cross-sectional studies have revealed an apparent link between the level (and type) of media exposure and the likelihood of having an eating disorder or symptoms.14,71,102–106

The authors of a meta-analysis of 66 studies concluded that distorted, negative body image plays a key role in the development of an eating disorder.107 As discussed above, body-image development comes from many sources, including family and peers but also media exposure. Looking from a different perspective,
young women with diagnosed eating disorders have reported being influenced by magazines and newspapers. In experimental studies, this group of young women overestimates body sizes.

- A large survey of 11,000 adolescents revealed that those wanting to emulate the looks of media role models were more likely to be concerned about weight than their peers. As well, this study yielded a greater likelihood of purging by those teenagers endorsing a “media ideal” of beauty.6
- A prospective cohort study of almost 7,000 girls (aged 9–14 years) revealed both peer and media influences on purging: girls purging or using laxatives at least monthly to control weight (~1% of the sample) cited the importance of thinness to peers and trying to look like models on television, in movies, or in magazines. Girls wanting to look like their media role models had twice the risk of purging monthly.14
- A recent longitudinal study of >2,500 girls from middle through high school revealed that those who were heavy readers of magazines with dieting and weight-loss articles were twice as likely to engage in unhealthy behaviors of purging and laxative use after 5 years.110
- Even young girls in elementary and middle school who read fashion magazines were dissatisfied with their bodies and had more eating-disorder symptoms; their own bodies suffered in comparison to the models in magazines.71,104
- In 1 study, college women who “internalized” the cultural bias toward thinness scored higher on tests of body dissatisfaction and bulimia.111
- A cohort of college women exposed to “thin-ideal television” among 40 prime-time programs was a significant predictor of disordered eating for women of all races. In the same study, women exposed to sports media did not report disordered eating.112
- In an interesting approach, girls who decreased their reading of fashion magazines had fewer eating-disorder symptoms.113

The Internet, often a valuable learning tool, is also a minefield of dangerous information for the weight- and body-image–conscious teenager. A recent study identified at least 20 proanorexia Web sites that offer encouragement for disordered eating behaviors.114 “The general attitude of the pro-ana (anorexia) and pro-mia (bulimia) sites is one of superiority, empowerment, and pride, where young women encourage one another to demonstrate self-control and reject weak societal values.”1,115 These unmonitored sites clearly represent a danger to vulnerable, possibly seriously ill young people; typical visitors on these sites are overweight young women and others who have eating disorders or other mental health problems.1

A naturalistic study reinforced concerns about the connection between media exposure and eating disorders. Three years after the introduction of American television to the island of Fiji, 15% of girls reported vomiting to control weight.
Before the introduction of American television shows, only 3% were dissatisfied with their weight or appearance. The number of Fijian teenagers who scored high on a test for disordered eating doubled, and 75% of the girls reported feeling “too big or fat” after mainstream American shows such as Beverly Hills 90210 came to their country. Those girls watching television >3 nights per week were 50% more likely to have negative body image and 30% more likely to diet. Similarly, a recent longitudinal study of 3000 Spanish adolescents over 19 months found that those who read fashion magazines were 2 times more likely to develop an eating disorder. The very young are not immune either. Harrison studied 300 children aged 6 to 8 years at 2 schools in the Midwest and found a correlation between television viewing and eating-disorder symptoms.

Not all researchers have found an association between exposure to certain media images and eating disorders. Some studies have revealed one media subtype to correlate with abnormal eating habits but not others (eg, fashion magazines, music videos, and soap operas but not television in general). These findings could relate to sometimes unreliable self-reporting of media exposure by subjects or to the “third person effect” (teenagers are known to be susceptible to the belief that “media affects everyone but me”).

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Fig 10. Spoof of a Victoria’s Secret ad by Adbusters.org.
WHAT CAN BE DONE TO MAKE THE MEDIA HEALTHIER FOR KIDS, VIS-A-VIS BODY SELF-IMAGE?

The media could certainly “play a role as a catalyst or intermediate influence, rather than a direct and complete cause of eating problems, perhaps only by certain subgroups of young women.” It is highly likely that media images and messages contribute to the construction of a young women’s body image, often negative. In turn, a negative body image occurring during early adolescence may make disordered eating more likely. Until these associations are examined further, adults must make media healthier for young viewers and users of the increasing array of media today.

Media education presents the best opportunity to counter the harmful messages and images on large and small screens and in the print media. Media education involves teaching young people to be savvy, wise consumers of all media. Media-educated teenagers learn several lessons:

- Media have political, social, and economic implications.
- All media are constructed for a reason.
- Media contain ideological and value messages.
- Media construct our culture.

Fig 11. Dove has successfully countered the traditional advertising of women by using full-sized models in their ads.
- Each form of media uses its own language and techniques.
- No two people experience media the same way.

Adolescents can practice media education at home if involved, concerned parents co-view media and encourage critical thinking and deconstruction of images and messages. Young people also need access to healthy media; a new magazine for girls, *New Moon*, emphasizes robust health and activity and engenders pride in caring for the body you have. Although schools are already burdened to provide more than the 3 R’s, they should incorporate media education into relevant health units. Youth can also be steered to create their own media products, possibly countering the dangerous body-image models so prevalent in media now. The National Institute on Media and the Family created an innovative program to help families, educators, and communities become “MediaWise.”

Fig 12. ●●●.
As daunting as the prospect seems, engaging the media to provide healthier messages about body images must be a key component of improving media for young people. Ads that feature normal teenagers and shows that feature normal teenagers of all shapes and sizes could go a long way in reorienting body image toward normalcy (see Fig 10). Consumer complaints about magazine ads and articles and television programs should be encouraged. Not surprisingly, other countries are more attuned to the media’s role in body-image formation (eg, Great Britain).\textsuperscript{35} Ideally, shows, articles, and advertisements would depict healthy nutritional choices and exercise as the hallmarks of good health. Occasionally, examples of positive, believable, nonskinny media characters do appear: the 2002 movie \textit{Real Women Have Curves} depicted an overweight Hispanic teenager played by America Ferrera, who is also featured in the teen movie \textit{The Sisterhood of the Traveling Pants} and the television hit \textit{Ugly Betty}.

Pediatricians and public health leaders must continue to recognize, prevent, and treat obesity and eating disorders. Many professionals are viewing the epidemic of obesity as one of the primary health concerns facing children and youth. Acknowledging the role of media in influencing the escalating rates of these problems is key. The new American Academy of Pediatrics guidelines for preventing obesity and its complications in childhood and adolescence recommend limited media use daily as part of a comprehensive management plan.\textsuperscript{130} In addition to healthy dietary choices (emphasizing fruits and vegetables) and 60 minutes of vigorous exercise daily, media use is clearly recognized as a contributor to the obesity epidemic. In a staged approach for children with a BMI between the 85th and 94th percentiles, screen time should be <2 hours daily as a preventive measure. For children and adolescents requiring a structured weight-management protocol, the total screen-time recommendation is <1 hour daily.\textsuperscript{130}

CONCLUSIONS

Body image in adolescence is constructed from several factors: individual, familial, peer, and cultural. “Interventions that reduce sociocultural pressures to be thin and educate adolescents to more critically evaluate messages from the media hold promise in reducing body dissatisfaction,”\textsuperscript{97} ultimately encouraging positive body image and self-esteem and reducing the risk of harmful outcomes, both physical and emotional (Fig 11).

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