

Eating Disorders

People with eating disorders experience serious disturbances in their eating patterns, such as a severe and unhealthy reduction in their food intake or overeating, as well as extreme concern about body shape or weight. Eating disorders usually develop during adolescence or early adulthood.[1] Eating disorders are not due to weak willpower or bad behavior; rather, they are real, treatable illnesses. The two main types of eating disorders are anorexia nervosa and bulimia nervosa.

Who has eating disorders?

- Women are much more likely than men to develop an eating disorder. Only an estimated five to 15 percent of people with anorexia or bulimia are male.[1]
- An estimated 0.5 to 3.7 percent of women suffer from anorexia nervosa in their lifetime.[1] Research suggests that about 1 percent of female adolescents have anorexia.[2]
- An estimated 1.1 to 4.2 percent of women have bulimia nervosa in their lifetime.[1]
- About 50 percent of people who have had anorexia develop bulimia or bulimic patterns.[2]

What are the signs and symptoms?

Anorexia Nervosa — Extreme weight loss and believing that one is fat despite excessive thinness are key features of anorexia. The following behaviors are signs that a person may have anorexia:

- Skips meals, takes tiny portions, will not eat in front of others, or eats in ritualistic ways
- Always has an excuse not to eat
- Will only eat a few “safe,” low-calorie, low-fat foods
- Loses hair, looks pale or malnourished, wears baggy clothes to hide thinness
- Loses weight yet fears obesity and complains of being fat despite excessive thinness
- Detests all or specific parts of the body, insists she or he cannot feel good about self unless thin
- Exercises excessively and compulsively
- Holds to rigid, perfectionist standards for self and others
- Withdraws into self and feelings, becoming socially isolated
- Has trouble talking about feelings, especially anger

Bulimia Nervosa — People who have bulimia regularly binge-eat and then attempt to prevent gaining weight from their binge through purging (e.g., vomiting, abusing laxatives, exercising excessively). The following are signs of bulimia:

- Binges, usually in secret, and empties cupboards and refrigerator
- Buys “binge food” (usually junk food or food high in calories, carbohydrates and sugar)
- Leaves clues that suggest discovery is desired: empty food packages; foul-smelling bathrooms; running water to cover sounds of vomiting; use of breath fresheners; poorly hidden containers of vomit
- Uses laxatives, diet pills, water pills or “natural” products to promote weight loss
- Abuses alcohol or street drugs to deaden appetite or escape emotional pain
- Displays a lack of impulse control that can lead to rash and regrettable decisions about sex, money, commitments, careers, etc.

What causes eating disorders?

As with most mental illnesses, eating disorders are not caused by just one factor but by a combination of sociocultural, psychological and biological factors.

➔ Sociocultural and psychological factors:

- Low self-esteem [4]
- Pressures to be thin (i.e., pressure to lose weight from family and friends) [3]
- Cultural norms of attractiveness as promoted by magazines and popular culture [3]
- Use of food as way of coping with negative emotions [3]
- Rigid, “black or white” thinking (e.g., “being fat is bad” and “being thin is good”) [3]
- Over-controlling parents who do not allow expression of emotion [3]
- History of sexual abuse [3]

➔ Biological factors:

- Genetic predisposition to eating disorders, depression, and anxiety [3]
- Certain personality styles, for example obsessive-compulsive personality type [2]
- Deficiency or excess of certain brain chemicals called neurotransmitters, especially serotonin [4]

What other mental illnesses commonly “co-occur” with eating disorders?

Mental illnesses such as depression, anxiety and alcohol/drug addiction are sometimes found in people with eating disorders. Some of these disorders may influence the development of an eating disorder, and some are consequences of it. Many times, eating and co-occurring disorders reinforce each other, creating a vicious cycle.

What are the long-term effects of eating disorders?

Left untreated, eating disorders may lead to malnutrition; muscle atrophy; dry skin, hair, and nails; dental problems; insomnia or chronic fatigue; ulcers; low blood pressure; diabetes; anemia; kidney, liver, and pancreas failure; osteoporosis and arthritis; infertility; seizures; heart attack; and death:

- The most common causes of death are complications of the disorders, including suicide.[1]
- The mortality rate among people with anorexia is 12 times higher than the death rate among females ages 15 to 24 from all other causes.[1]

What treatments are available?

Eating disorders are treatable. The sooner they are diagnosed and treated, the better the outcomes are likely to be. Eating disorders require a comprehensive, long-term treatment plan that usually involves individual or family therapy, and that may include medication and even immediate hospitalization. Unfortunately, many people with eating disorders will not admit they are ill and refuse treatment. Support from family and friends is vital to successful treatment and recovery.[1]

Mr Brown H-11

Retouched Or Not? A Tool to Tell

By STEVE LOHR

The photographs of celebrities and models in fashion advertisements and magazines are routinely buffed with a helping of digital polish. The retouching can be slight — colors brightened, a stray hair put in place, a pimple healed. Or it can be drastic — shedding 10 or 20 pounds, adding a few inches in height and erasing all wrinkles and blemishes, done using Adobe's Photoshop software, the photo retoucher's magic wand.

"Fix one thing, then another and pretty soon you end up with Barbie," said Hany Farid, a professor of computer science and a digital forensics expert at Dartmouth.

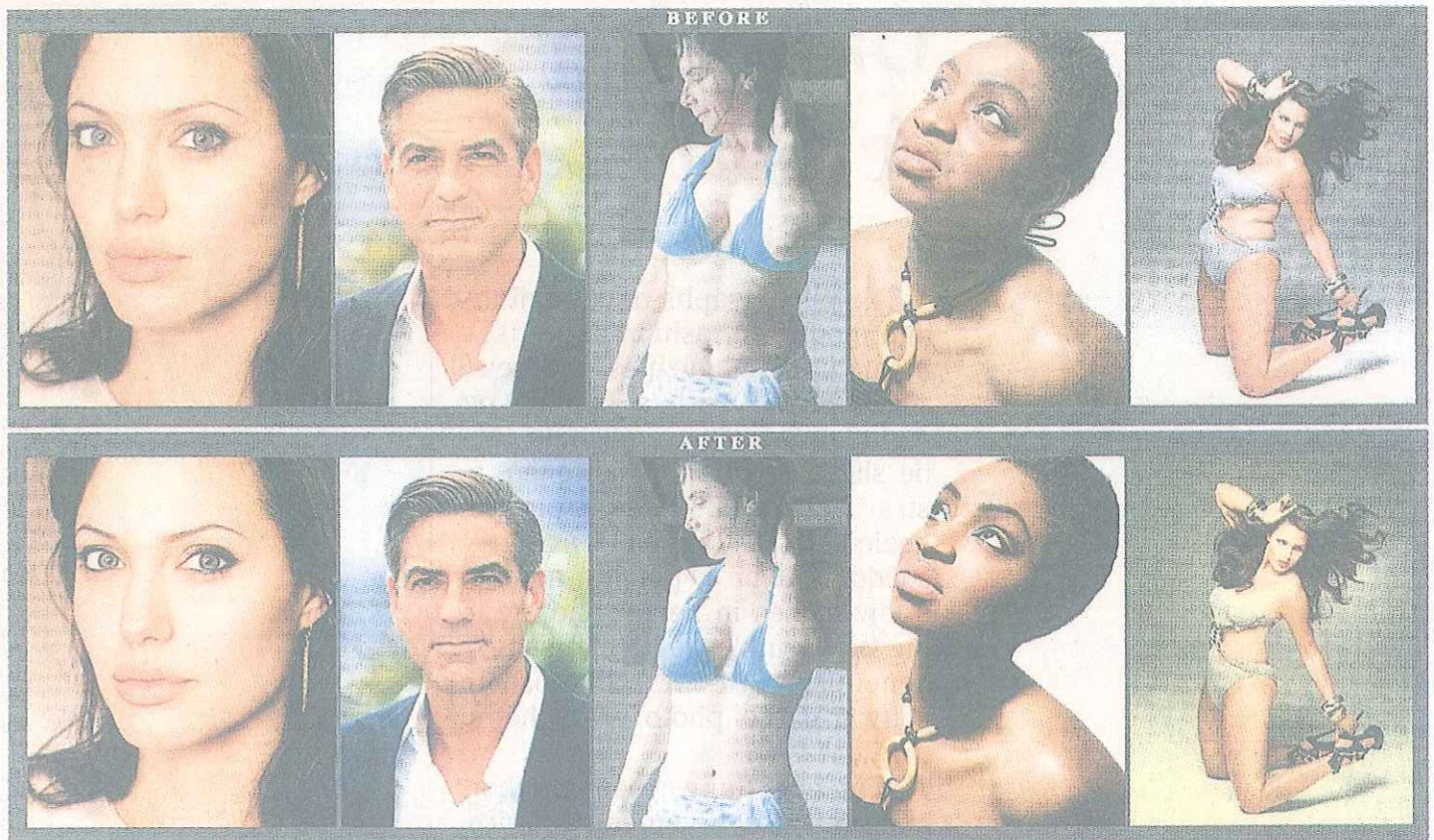
And that is a problem, feminist legislators in France, Britain and Norway say, and they want digitally altered photos to be labeled. In June, the American Medical Association adopted a policy on body image and advertising that urged advertisers and others to "discourage the altering of photographs in a manner that could promote unrealistic expectations of appropriate body image."

Dr. Farid said he became intrigued by the problem after reading about the photo-labeling proposals in Europe. Categorizing photos as either altered or not altered seemed too blunt an approach, he said.

Dr. Farid and Eric Kee, a Ph.D. student in computer science at Dartmouth, are proposing a software tool for measuring how

Continued on Page 10

NYT 11-29-2011



From left to right, photographs show the five levels of retouching in a system by Hany Farid of Dartmouth. The effect, from slight to drastic, may discourage retouching. "Models, for example, might well say, 'I don't want to be a 5. I want to be a 1,'" he said.

Photoshopped or Not? A Tool Can Tell

From First Business Page

much fashion and beauty photos have been altered, a 1-to-5 scale that distinguishes the infinitesimal from the fantastic. Their research is being published this week in a scholarly journal, The Proceedings of the National Academy of Sciences.

Their work is intended as a technological step to address concerns about the prevalence of highly idealized and digitally edited images in advertising and fashion magazines. Such images, research suggests, contribute to eating disorders and anxiety about body types, especially among young women.

The Dartmouth research, said Seth Matlins, a former talent agent and marketing executive, could be "hugely important" as a tool for objectively measuring the degree to which photos have been altered. He and his wife, Eva Matlins, the founders of a women's online magazine, Off Our Chests, are trying to gain support for legislation in America. Their proposal, the Self-Esteem Act, would require photos

that have been "meaningfully changed" to be labeled.

"We're just after truth in advertising and transparency," Mr. Matlins said. "We're not trying to demonize Photoshop or prevent creative people from using it. But if a person's image is drastically altered, there should be a reminder that what you're seeing is about as true as what you saw in

Concerns about the effects of idealized body images.

'Avatar;' the science-fiction movie with computer-generated actors and visual effects.

The algorithm developed by Dr. Farid and Mr. Kee statistically measures how much the image of a person's face and body has been altered. Many of the before-and-after photos for their research were plucked from the Web sites of professional photo retouchers, promoting their

skills.

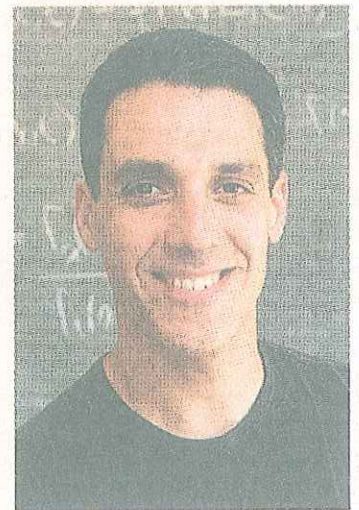
The algorithm is meant to mimic human perceptions. To do that, hundreds of people were recruited online to compare sets of before-and-after images and to determine the 1-to-5 scale, from minimally altered to starkly changed. The human rankings were used to train the software.

His tool, Dr. Farid said, would ideally be a vehicle for self-regulation. Information and disclosure, he said, should create incentives that reduce retouching. "Models, for example, might well say, 'I don't want to be a 5. I want to be a 1,'" he said.

Yet even without the prod of a new software tool, there is a trend toward Photoshop restraint, said Lesley Jane Seymour, editor in chief of *More*, a magazine for women over 40.

Women's magazine surveys, said Ms. Seymour, a former editor of *Marie Claire* and *Redbook*, show that their readers want celebrities to "look great but real."

"What's terrific is that we're having this discussion," she said. But readers, she added, have become increasingly sophisticated in understanding that photo re-



JOSEPH MEHLING

Hany Farid, a computer science professor at Dartmouth.

touching is widespread, and the overzealous digital transformations become notorious, with the before-and-after images posted online and ridiculed.

"Readers aren't fooled if you really sculpt the images," Ms. Seymour said. "If you're a good editor, you don't go too far these days. If you give someone a face-lift," she said, adding, "you're a fool."