

EATING DISORDERS REVIEW

Current Clinical Information for the Professional Treating Eating Disorders



Published by Gürze Books, specializing in eating disorders publications and education since 1980.

ISSN 1048-6984

JANUARY/FEBRUARY 2007 • VOL. 18 / NO. 1

UPDATE

Would Mandatory PE Classes Protect Against Obesity?

One suggestion to combat childhood obesity is to make physical education (PE) classes mandatory. If this hypothesis turned out to be true, it could be assumed that children who participate in PE more frequently would be thinner, on average, than children who don't participate as often. Drs. Monica Baskin and David Allison, of Birmingham, AL, evaluated data from a national telephone survey taken in May 2004 (the ABC News/Time Magazine Obesity Poll). A random sample of adults 18 and older answered questions about themselves and all children aged 6-17 years in the household. There were 282 respondents, and information was gathered about sex, ethnicity, education, height, weight, and other demographic information. The results of the study cast doubt on the theory that making PE classes mandatory and/or increasing the frequency with which children participate in PE classes would have an effect upon childhood obesity. For such classes to be effective, their format, frequency, and intensity would have to be changed, according to the authors. Drs. Baskin and Allison presented the results of their study at the 2006 Obesity Society national meeting in Boston October 2-4.

How Effective Are Internet-Based Programs For Preventing Eating Disorders?

By Mandi Newton, RN, PhD
Edmonton, Alberta, Canada

The increasing occurrence of disordered eating, as well as the personal and societal costs associated with having an eating disorder, has led to increased prevention efforts. These efforts have included delivering programs that use the Internet as their access point. Such an approach is hardly surprising given today's trends in computer use. Computers have become a staple in everyday life, and Internet technology has broadened the ways in which we communicate and learn. But, how effective are Internet-based eating disorders prevention programs?

Little Research Has Been Done Thus Far

A recent review evaluated Internet-based eating disorders prevention programs published as research studies from 1985 to 2004.¹ Only five studies had robust enough research designs to be included in the review. Each of the studies evaluated the same program, *Student Bodies*, indicating limited program options for individuals interested in delivering or being a part of this type of prevention initiative.

Student Bodies is a program based on social learning, cognitive behavioral, and psychoeducational theories (see page 2). It uses readings and reflection, an Internet-based body image journal, and Internet-based discussions to address many of the factors that lead to or allay eating pathology. This includes cognitive/affective

factors (e.g., nutritional and exercise knowledge/attitudes, perceived social support), psychological factors (body image, drive for thinness, self-efficacy), sociocultural/peer norms (thinness ideal, dietary and exercise practices), and behavioral factors (coping/goal setting, food preparation, exercise patterns, for example).

The wide-ranging content of *Student Bodies* gives program participants the opportunity both to challenge negative influences and to develop skills that protect against the development of eating pathology. In theory, multi-session interventions like *Student Bodies* are ideal because they provide time for participants to reflect on new ideas and information and also to experiment with newly acquired skills.

In their review, Newton and Ciliska found no evidence, however, to suggest that the *Student Bodies* program used in the research studies was effective in reducing eating disordered attitudes and behaviors, body dissatisfaction (weight and shape concerns), or addressing factors known to contribute to the development of an eating disorder.¹ The authors offered several explanations for these results. Three of the five reviewed studies had high program dropout rates, which potentially points to programmatic concerns. Also, content or specific ways that the content is delivered by *Student Bodies* may affect individuals' investment in continuing with the program.

Two studies also reported results that

continued on page 2

ALSO IN THIS ISSUE

The Internet: Friend or Foe for Treating Eating Disorders?	3
Does Gender Affect Symptoms, Temperament & Outcome in AN?	4
The Effect of Body Weight on PYY Levels	4
Dr. Thomas Insel: Group Advocacy, More Data, Will Improve	
Eating Disorders Research Funding	5
Binge Eating Among Overweight Children	6
Review: <i>Drawing from Within: Using Art to Treat Eating Disorders</i>	7
Oral Contraceptives and Bone Mineral Density	8
Q & A: Diet Colas—Concerns for Patients with Eating Disorders?	8

Editor-in-Chief

Joel Yager, MD
University of New Mexico, Albuquerque

Managing Editor

Mary K. Stein

Associate Editor

Russell David Marx, MD
University Medical Center at Princeton, NJ

Editorial Board

Arnold E. Andersen, MD
University of Iowa, Iowa City

C. Wayne Callaway, MD
George Washington School of Medicine,
Washington, DC

Tami J. Lyon, MPH, RD, CDE
BestSelf, Inc., San Francisco, CA

James E. Mitchell, MD
University of North Dakota School of Medicine, Fargo

Pauline Powers, MD
University of South Florida, Tampa

Cheryl L. Rock, PhD, RD
University of California, San Diego

Walter Vandereycken, MD, PhD
University of Leuven, Belgium

B. Timothy Walsh, MD
Columbia University College of Physicians and Surgeons, New York City

Linda Watts, MA, RD
St. Paul's Hospital, Vancouver, BC

Stephen Wonderlich, PhD
University of North Dakota School of Medicine, Fargo

Alayne Yates, MD
University of Hawaii School of Medicine, Honolulu

Kathryn Zerbe, MD
Oregon Health & Sciences University, Portland

Publisher

Leigh Cohn, MAT

Copyright © 2007 by Gürze Books. All rights reserved. Reproduction, photocopying, storage or transmission by electronic means without permission from Gürze Books is strictly prohibited by law. Violation of copyright will result in legal action, including civil and/or criminal penalties, and suspension of service.

Eating Disorders Review® (ISSN 1048-6984) is published bimonthly by Gürze Books, PO Box 2238, Carlsbad CA 92018. 760/434-7533, fax 760/434-5476, e-mail gurze@aol.com. Prior indexes and more information at www.gurze.com.

Missing issues will be replaced without charge if the publisher is notified within 60 days of publication. Otherwise, replacement and back issues are available for \$10.00 by contacting Gürze Books.

Editorial questions should be addressed to Joel Yager, MD or Mary K. Stein c/o MD Communications, 65849 E. Desert Trail Dr., Tucson, AZ 85739-1172; 520/818-3300 (phone), 520/818-3798 (fax); marykaystein1@aol.com.

CE credits—see insert.

Online archives—A free service to subscribers. Contact Gürze Books for password access.

Subscriptions—see page 8.

continued from page 1

suggest there may have been other factors that could have impacted eating-disordered attitudes and behaviors, body satisfaction, and contributing factors to eating disorders development. For example, other programs or media efforts, as well as the influence of negative and positive life events, may have impacted individuals' experiences with *Student Bodies*.

Benefits and Drawbacks of Internet Programs

While the findings from this review are discouraging, the Internet as a delivery medium provides a novel approach to prevention, and this type of strategy may better reflect the future of program access. Internet-based prevention programs do come equipped with their own advantages and disadvantages compared to the traditional practitioner- or didactic-based programs.

Easier access in terms of where and when an individual participates can increase program availability to individuals who may not otherwise participate in traditional prevention efforts. It is important to keep in mind, however, that Internet-based programs do not necessarily mean easier access. Computer and Internet speed, geographical location, and financial means can also be barriers to participation.

Privacy and confidentiality can also be both an advantage and a disadvantage for individuals concerned with disclosure. For example, both privacy and confidentiality are dependent upon the protection the Internet-based program provides from 'computer hackers' and supports in terms of 'firewalls'.

Some scholars purpose that the Internet leads to better social relationships by removing geographical barriers or isolation related to the stigma that often accompanies mental disorders. Others argue that the Internet alienates users from genuine social relationships and personal contact.²

It is possible that an Internet-based prevention strategy such as *Student Bodies* improves social support. Two of the five reviewed studies assessed this outcome and found that participants felt therapeutically supported by the program's on-line discussion.¹ How-

ever, while the Internet may point to the future of many services, including eating disorder prevention strategies, it is important to remember that these types of programs are unable to detect and address serious eating disorder symptoms that might otherwise be screened and discussed during in-person interventions. Therefore, as developments in this field continue, clear standards and guidelines to govern Internet-based interventions will be needed to help protect professionals who deliver them and eating disorders patients who receive them.

References

1. Newton M, and Ciliska D. Internet-based interventions for the prevention of eating disorders: A systematic review. *Eating Disorders: Journal of Treatment and Prevention* (in press, November 2006).
2. Kraut M, Patterson M, Lundmark V, et al. Internet paradox. A social technology that reduces social involvement and psychological well-being? *American Psychologist* 1998; 53(9), 1017.

Student Bodies

Student Bodies™ is a self-contained high school and undergraduate level course on the topic of eating disorders, body image disorders, and the concepts of beauty. It uses new multimedia course delivery technologies. Students who participate in the full scope of the program have reported significant improvement in their body images.

Student Bodies was developed at Stanford University in response to repeated student requests for an academic course covering the topics of eating disorders and body image. In 1993, the Human Biology Department sponsored a course called "Body Traps" to respond to this interest. Simultaneously, Barr Taylor MD and Andrew Winzelberg PhD, in the School of Medicine at Stanford, were developing a computer-delivered eating disorder prevention program (*Student Bodies*) for undergraduate women. They wanted to develop a computer-delivered program because of the flexibility and privacy it offered to students, and the ability to offer the course to larger numbers of students. In 1997, the Body Traps course was integrated into the *Student Bodies* software and evaluated in a clinical trial.

The Internet: Friend or Foe for Treating Eating Disorders?

At the recent National Eating Disorders Association (NEDA) meeting in Bethesda, MD, Kathleen Burns Kingsbury, LMHC, and Sarah R. Brotsky, PsyD outlined the benefits and drawbacks of the Internet as an adjunct to traditional therapy for eating disorders patients (see also article on page 1).

An Inside View of Pro-ED Websites

Dr. Brotsky, a clinical psychologist, told the audience about her project to investigate online pro-Ana websites in depth. She went “undercover,” posing as a person with an eating disorder, to try to understand the inner workings of pro-Ana sites and why they are so appealing to patients with eating disorders.

Dr. Brotsky said, “Within the pro-eating disorders community, the Internet has provided these individuals with support. We need to be familiar with this and to talk about it with clients. Be open to hearing about them, be an advocate for clients, and let them know they are being heard. Don’t be afraid to look, because it isn’t going away,” she stressed.

After analyzing about 30 different chat room sites and after enrolling as a member in 24 online sites, Dr. Brotsky found a number of recurring themes.

Connections and group norms. “The process of becoming a member of pro-Ana sites is so easy that it is scary,” said Dr. Brotsky. Lots of individuals want to connect with the larger community online and feel they have a common goal, she said. New members were warmly welcomed to the sites with comments such as ‘Good luck, hugs and kisses.’ Participants regularly shared photos, animated drawings, and personal information. Members could post polls and the community would participate. When Dr. Brotsky posted a questionnaire (as a member), to see if pro-Ana or pro-limia was a lifestyle or a choice, of 232 members who responded, 131 reported they felt it was a disorder. There were often subcommunities on the website, too. Members of these subcommunities provided comments such

as, ‘Welcome to a community where a person can live with an eating disorder, and a place to get support.’

Strong group identity and the possibility of rejection. Dr. Brotsky reported that one characteristic of the websites was a strong group identity. She also noted that she was rejected from a site where applicants had to submit an application and members voted upon the applicants. Dr. Brotsky was surprised at some of the responses; for example, some members sent back vulgar comments and the final rejection came from the moderator. To underscore the rejection of her application for membership, the moderator sent her a drawing of a skeleton with the middle finger extended.

Shared identify through eating disorder tips. Some sites promoted their identity through eating disorder tips, such as ways of losing weight quickly and shared behavior and weight loss ideas. They also promoted the use of special jewelry that promotes eating disorders (see box below).

Watch for Bracelet Clues

A client’s bracelet may offer clues about possible membership in online groups that promote eating disorders, according to Dr. Brotsky. She called such bracelets “The elephant in the room,” and advised clinicians to be alert to such jewelry and its telltale colors:

Red: Pro-anorexia

Purple: Pro-bulimia

Green: Pro-eating disorders not otherwise specified (EDNOS)

Black and blue: Pro-self-injury

Relationship to the eating disorder, longing for relationships online and inability to sustain relationships offline. Dr. Brotsky reported that website participants often identified themselves through the personification of the eating disorder. For example, one participant wrote, ‘Ana takes up all my free time but this doesn’t matter because I do everything with Ana.’ Another trend

was that some members liked to join a group at a distance, without being seen and feeling safe online. Many members of the online communities indicated that they didn’t get support from others and thus turned to the website for online friendships and support.

Hope, support and recovery from the community. One of the positive signs that Dr. Brotsky experienced was the hopeful, supportive, and sometimes helpful comments from others online. When others learned that she was dealing with an eating disorder and leaving the site because she was pursuing treatment, they said, ‘This is a big step and I’m proud of you.’

Screening clients for pro-Ana Internet use

If a clinician suspects a client is actively using the pro-Ana network, Dr. Brotsky suggests first trying to determine how long the client has been a member of the website or websites and how often he or she participates. Learning if any pro-Ana friendships have emerged will also help explain why the progress in psychotherapy sessions may have been unusually slow.

One way to approach the client who uses the pro-Ana network is to suggest healthy alternatives, with websites such as Something Fishy, which also offers a good forum for discussing eating disorders. Dr. Brotsky also created her own website, United We Starve No More, to offer ideas about a healthy alternative lifestyle.

The Internet as an important adjunct to traditional therapy

The Internet offers a new and important adjunct to therapy that clinicians should be aware of, Kathleen Kingsbury told the audience. She noted that more than 98 million people use the Internet daily to get health information. And, as for eating disorders patients, she pointed out that the NEDA website recently had more than 5 million “hits” and more than 90,000 unique visitors during a single month.

continued on page 4

A nonthreatening way to address eating disorders

The Internet offers a nonthreatening way for patients to keep in touch and to approach sensitive subjects they might not be able to address as easily in face to face sessions, Kingsbury said. Therapy online with no contact is not recommended for eating disorders patients, she stressed and certainly isn't appropriate for high-risk patients or those with anorexia nervosa.

New technology is offering helpful ways for patients to communicate by using their portable computers, such as PDA units, where they can keep food logs or report episodes of anxiety and/depression. And, she added, one day patients may even be able to use virtual reality systems, much like the NASA astronauts do, to experience their bodies at different sizes.

As with the Internet overall, educational websites can be both helpful and unhealthy, she said. Kingsbury praised such sites as www.myselfhelp.com, a subscription online service that helps individuals learn about bulimia, binge eating and obesity, and that offers daily lessons, tools, exercises, and written tools. She also noted that telepsychiatry programs, like that developed by Dr. Jim Mitchell at the University of North Dakota, have proved to be very effective for persons in rural areas who have little access to health care.

A caveat: use the Internet with care

Before a clinician uses the Internet in a therapeutic program, he or she needs to consider several parameters, according to Kingsbury. Professional liability is one: some patients may be in an adjacent state and the clinician needs to be careful about licensure requirements. Also, technical problems can occur, and it is important to have procedures in place in case problems arise—for example, if the therapist is late.

Also, all information going to and from a client must be safeguarded, she stressed. An online system of encrypting information is very important, so the information cannot be decoded. There should be a system of password protection, she noted, especially if the client and family members are sharing a computer. The client should give

informed consent before e-mail is exchanged, or at the least the therapist and client should talk about this—there should be a written policy about when and how the e-mail is going to be used, to avoid inadvertent breaches of confidentiality. Finally, Kingsbury said there is a great need for programs and software designed for loved ones and family members.

Does Gender Affect Symptoms, Temperament, and Outcome in AN?

The fact that there is a markedly higher prevalence of anorexia nervosa (AN) among females than males has led to speculation about what specific causal factors may differ between men and women. Anecdotal observations have also suggested that men with AN may have more atypical features, such as psychoses, personality disorders and sexual deviance, than females, but less concern with actual weight.

Michael Strober PhD, and colleagues at the David Geffen School of Medicine at UCLA recently found one significant difference between 99 consecutive patients (85 girls and 14 boys) with DSM-IV criteria for AN who were admitted for treatment at the UCLA Neuropsychiatric Hospital, Los Angeles (*Int J Eat Disord* 2006;39:570). Girls had significantly higher scores on weight concerns on the Eating Disorder Examination.

Both genders had equivalently severe core features of the illness upon admission and comparably high prevalence rates of comorbidity with anxiety disorders. Most were described by their parents as having an "anxious" personality.

Girls had a more prolonged course of illness

After discharge, the girls had a more prolonged course of disease and had more intense weight, shape, and eating concerns when they were reassessed a year after discharge. The authors offer several speculations as to how the females' greater concerns about weight could help account for these differences, including biological, psychological, and

behavioral factors. First, they hypothesized that sexual dimorphisms in brain serotonergic activity (5-hydroxytryptamine [5-HT]) activity and the effects of ovarian steroids on 5-HT pathways may have led to the differences. Other possibilities include changes in brain 5-HT function caused by chronic dieting and social and cultural norms that present a thin weight ideal for girls, which might then lead to fears of weight gain compared with males. Other possibilities include a stronger heritability of anxiety sensitization in females compared with males, and the frequently higher prevalence of behavioral inhibition and neuroticism among females in the general population.

According to the authors, future studies will be needed to determine whether weight concern per se brings heightened risk of a more pernicious long-term illness, or is a risk factor for early relapse only, or is simply a correlate of other later influences that contribute to greater persistence of AN in females than in males.

The Effect of Body Weight on PYY Levels

In the quest for ways to counteract obesity, numerous researchers have searched for naturally occurring hormones or chemicals that might promote or reduce the incidence of obesity. One of these is peptide YY (PYY), an intestinal peptide that is believed to be a satiety factor. Early studies suggested that low plasma PYY levels may contribute to diet-induced human obesity and justify PYY replacement therapy. However, according to the results of a recent study, PYY may not be an effective advance toward effective anti-obesity treatment, and there may be no PYY deficiency in obesity (*J Endocrin Metab* 2006; 10:1425).

Dr. P.T. Pfluger and co-workers in Germany and Australia measured total PYY levels in 18 female patients with anorexia nervosa; 63 obese persons (20 males, 43 females); 66 lean subjects (24 males, 42 females); and 16 morbidly obese subjects (1 male, 15 females). In addition, total PYY was measured in 17

PYY continued on page 6

NIMH's Dr. Thomas Insel: *Group Advocacy, More Data, Will Improve Eating Disorders Research Funding*

Dr. Thomas R. Insel, Director of the National Institute of Mental Health (NIMH), speaking at the NEDA meeting in Bethesda, said it will be important to find the core pathology for an eating disorder, just as it has been for breast cancer, type I diabetes and lymphoma. The hope is that biological markers for an eating disorder can be established before the worst parts of the disease have developed, Dr. Insel noted.

Many eating disorders are in reality brain disorders

"Within the realm of eating disorders, especially anorexia nervosa, we are talking about brain disorders," he said. Noting that he himself was trained in a more psychodynamic environment, nonetheless, he said, sometimes psychotherapy alone is ineffective. (Dr. Insel was involved in the first studies of dopamine and serotonin and the complex social behavior of animals). "The unhappy story is that we still don't have all the components," he said, adding, "We diagnose all these disorders by the presenting symptoms as episodes arise, and usually after they arise." We cannot preempt the disease, he pointed out, adding, "What we are missing is an understanding of the biology of the disorders and what is really going wrong." In other words, he said, it is still not known what portion of the brain is abnormal in an eating disorders patient.

Dr. Insel said, "Unfortunately, for a mental disorder, treatment often depends more upon who the patient goes to see than on a specific, established protocol." Imagine if treatment for breast cancer depended on the individual medical center, he said, noting that just as this approach is not acceptable for breast cancer, it is not acceptable for eating disorders treatment.

Better diagnostic tools have helped individual care

The good news is that diagnostic tools developed in the last decade are allow-

ing clinicians to do what has been impossible before, according to Dr. Insel. "These tools have already transformed the way we have approached so many disorders, such as cancer, heart disease, and diabetes. They have allowed clinicians to individualize patient care," he

There is good reason to think that the prefrontal cortex is the brain center for some eating disorders.

said. The second part of what needs to be done is to establish evidence-based practices, to develop dissemination of data and to establish the "generalizability" of research findings, according to Dr. Insel.

"We are at an interesting point in time," Dr. Insel said, and added, "10 years ago dopamine and serotonin and neurotransmitters were discovered and 10 to 12 centers in the brain were known. Now there are 800 to 900 known centers in the brain. We are just discovering which of these may control appetite or body image, for example," he said.

The changing culture of science

Dr. Insel said there is not just a changing culture of science in research but a "in the way we do patient care." He pointed to the Human Genome Project, which has identified 23,000 or so genetic addresses and a sequence for every gene. Even so, he added, "What is very clear is that we know very little about the human genome, including what makes us uniquely human. What makes it interesting is not the consensus, but what makes one person and not another develop anorexia."

Neuroimaging has provided a great leap forward in research and understanding of the brain, he said, noting that what was previously "a black box" is now viewed in high definition, with spatial resolution, so that even small changes can be seen and recorded. Real-time imaging has allowed researchers to see such changes. For example, the tiny lesions in epilepsy, which weren't visible before, can now be seen.

Research and funding

Dr. Insel, who oversees the NIMH's annual \$1.4 billion budget for research, noted that research into depression has led to finding a brain system that seems to converge on one area—Area 25—that seems to be the central switching area for the illness. For eating disorders there may not be a lesion, but abnormalities in information processing in the brain

will help lead researchers to the affected area or areas, he noted. Dr. Insel said, "Most likely for eating disorders this is a pathway in the prefrontal cortex—anorexia and post-traumatic stress disorder, for example, affect different parts of the prefrontal cortex. This is particularly true for the obsessions, addictive disorders, and alterations of body image," he pointed out, adding "there is good reason to think that the prefrontal cortex is the center."

Dr. Insel also said that research is changing the culture of science, and that the days of being able to talk about psychology versus biology versus neurology are fading, as is the idea of solo scientists. "We are getting away from the era where scientists do a study, hold onto the data and build their careers," he said. Instead, there is an effort to build networks and make information publicly accessible as quickly as possible.

Getting more grants for eating disorders research

When a member of the audience asked why it is so difficult to get funds for eating disorders research, even while the mortality rate from anorexia nervosa is higher than for any other mental illness, Dr. Insel said that more and better studies are needed, and that group advocacy does make a difference, as it has for advocates for schizophrenia and autism. He suggested that the eating disorders community could do the same thing, and also look for other sources of funding. Dr. Insel pointed out that advocacy groups for schizophrenia

INSEL continued on page 6

INSEL continued from page 5

and autism have developed their “own funding arms, partnering with other groups.”

He added that another critical step is to have data to present to Congress—better studies of the brain is one area, he said, where a picture is worth a thousand words. Another reason that research funding is challenging in the eating disorders field is that the overall field is still small and more studies and data are needed. One option for organizations that have smaller budgets is to get grants for pilot studies, he said. Dr. Insel also urged the audience to continue to get the word out about the seriousness of eating disorders and to work to change the perception that such disorders are due to bad parenting and lifestyle choices.

Binge Eating Among Overweight Children

More than 30% of children and teens in the U.S. are now classified as overweight or at risk of becoming overweight, and it's predicted that most of these children will become overweight or obese as adults. While children who report binge eating gain more weight than children who don't report binge eating, little is known about how binge eating affects children's food intake or its effects on their levels of satiation, satiety, and energy intake.

Dr. Margaret C. Mirch and colleagues at the National Institutes of Health, Bethesda, MD, studied 60 overweight children 6 to 12 years of age; 10 were categorized as binge eaters; the other 50 children reported no episodes of binge eating (*Am J Clin Nutr* 2006; 84:732).

Two buffets with lots of choices

The children were admitted for a three-day inpatient stay, during which they ate from standardized lunch buffets two days apart. All the children selected lunch twice from a multiple-item (9835 kcal) buffet meal. After an overnight fast and a standardized breakfast, the children ate at will until they reported they were full. The researchers recorded energy intake during the meals and the period that the children reported being

full after the meal. Relative body mass indexes were calculated according to the Centers for Disease Control and Prevention 2000 Growth Charts.

To assess binge eating, each child completed the Questionnaire for eating and Weight Patterns—Adolescent Version (QEWP-A). The QEWP-A has been used with children as young as 6 years of age. The children also completed the Three-Factor Eating Inventory, a 51-item questionnaire designed to measure cognitive restraint, disinhibition, and hunger.

The foods offered in the buffet were selected after determining the foods the children liked. The children were asked to select their lunch from a multiple-item buffet meal; foods offered at all other meals between the two buffet meals were selected by a registered dietitian to maintain the child's current body weight. The children were tested individually and when each child entered the buffet room, he or she was invited to eat as much as desired but they didn't have to eat anything they didn't like. The child was then left alone, to eat as much or as little as he wished. Afterward, the children were asked about how full they felt, and the children indicated how much more they felt they could eat on a visual analog scale.

Results: Intake and hunger were greater among children who binge-ate

The self-reports of hunger and fullness before the post-fast meal and the duration of the meal were not statistically different between the two groups. However, children in the binge eating group reported a significantly greater desire to eat before the meal than did children in the non-binge eating group. Total intake during the post-fast meal, adjusted for covariates such as age, height and weight, was significantly greater in children who reported binge eating than in children who did not binge eat.

Dr. Mirch and colleagues found that when overweight children who reported binge eating were asked to choose their lunch from a buffet that contained large portions of palatable foods, they overate to a significantly greater degree than did equally overweight children who

did not binge eat. In fact, children with a history of binge eating ate 400 kcal more than did children who did not report binge eating. Then, despite their greater intake of food, the children who reported binge eating became hungry at least an hour earlier than did children in the non-binge-eating group. When the results of the Three-Factor Eating Inventory were analyzed, the authors found that while restraint levels among children who reported binge eating did not differ significantly from those who did not binge eat, children in the binge eating group did have significantly higher levels of disinhibition and hunger.

Data similar to that in adults

The authors noted that the greater energy intakes seen in children with a history of binge eating are consistent with data from laboratory studies of adults with binge eating disorder who, when instructed to eat, consume significantly more energy than adults who do not engage in binge eating. The children who report binge eating behaviors appear to have deficits in appetite regulation that place them at risk for developing obesity because of their lack of satiety or other complex factors.

PYY continued from page 4

of the obese patients after weight loss and in the 19 anorectic patients after weight gain.

The researchers found that fasting total plasma PYY levels were highest in patients with anorexia nervosa (80.9 picograms per milliliter [pg/ml]), compared to lean (52.4 pg/ml), obese (43.9 pg/ml), or morbidly obese subjects (45.6 pg/ml). In obese patients, losing 5.4% of body weight was associated with a 30% decrease in fasting total PYY plasma levels. In patients with anorexia nervosa, weight gain had no effect on fasting PYY levels.

Thus, the authors' findings do not support a role for abnormal circulating PYY levels in human obesity. Instead, they concluded that circulating PYY levels in humans are significantly elevated in anorexia nervosa and, given the controversially discussed anorectic effect of PYY, could theoretically contribute to that syndrome.

Drawing from Within: Using Art to Treat Eating Disorders

(Lisa D. Hinz. Philadelphia, PA; Jessica Kingsley Publishers; 2006. 192 pp; \$24.95)

Over the years I've been privileged to work with several eating disorders patients who were talented visual artists. Through painting and drawing, each of them had, from time to time, tried to express their anguish and struggles with their eating disorders. I encouraged some of them to show and publish their work because I felt that they'd managed to capture in images aspects of eating disorders that could never be put into words. My sense was that something powerful and meaningful occurred in them as they grappled with their representations. Furthermore, a psychiatrist who is a good friend and colleague, who for decades has specialized in treating patients with eating disorders and whose judgment I deeply respect, regularly refers eating disorders patients for adjunctive treatment with an art therapist who practices in his professional building.

I always sensed that this activity might be helpful, but I wasn't really familiar with exactly what went on in art therapy sessions or how this was supposed to work. After reading Lisa Hinz's fine book, I think I "get it," and have a much better understanding and appreciation of what art therapy might bring to the treatment of patients with eating disorders.

Dr. Hinz is a Ph.D. clinical psychologist who also holds a postdoctoral certificate in art therapy from a major university. Her highly informative, clearly written, nicely illustrated, well-researched and referenced, cautious and thoughtful book lays out the premises and rationale of art therapy in general and of its utility for patients with eating disorders in particular. Dr. Hinz educates us about specific and technical exercises that art therapists might use with patients with eating disorders. She is careful to point out that reading this book will not turn you into an art therapist, and that it's important not to practice outside your scope of competence. Her cautionary words are written with clinical and ethical thoughtfulness: It's not a good idea for novices to rush in with techniques that might, if

improperly applied, cause more harm than good. But the book will probably inspire many clinicians who are not art therapists to find one locally, refer some suitable patients, and see what happens. Some readers may be sufficiently inspired to want to learn more about these techniques and perhaps ultimately try incorporating some of these exercises in assessment and treatment.

Theoretically, art therapy offers a way in which patients can nonverbally explore cut-off parts of themselves. They can also explore emotional and cognitive aspects of experience pertinent to their eating disorders, addressing the "right brain" rather than engaging the more cognitive "left-brain" perspectives of most conventional talking psychotherapies. Technically, the kinds of paper, ink, chalk, paint, and other art media are explained for what they offer therapeutically. Media differ in the types of expressions they facilitate, from loose to more carefully controlled and "tight," and their various uses offer ways in which patients can otherwise touch and express themes that may uncover new ways of understanding and dealing with eating-disorder-related issues.

In the technical exercises, each of which has a dominant theme and suggested media technique, patients are encouraged to draw, paint, create collages, and/or sculpt images. An array of media is intentionally made available to them, and patients are encouraged to make personal selections that best suit them for many of the exercises. Art exercises take place in the office, and patients are prepared to work by first being eased into a relaxed meditative state akin to that in guided affective imagery. They are instructed to set aside their "inner critic," with explicit instruction that there are no rights or wrongs, that this isn't about artistic talent, and that concerns about perfectionism and self-derogatory impulses about the "art" (explicitly differentiated from "Art") are best set aside.

After the patient does the exercise, therapist and patient join to engage in "intentional viewing," a nonjudgmental review of what has been produced. The patient is asked to produce a list of single-word associations evoked by the art, and, ultimately, the patient and therapist may consider deeper,

symbolic, dynamic and personal meanings and what is revealed. A rich array of structured exercises focus on creating an image of the eating disorder, portraying its impact (both its promises and realities), creating more positive self-images, body image explorations and corrections, coping exercises, and drawing time-lines of past life and of envisioned and desired futures, among many others that may be conducted in sequence. For each exercise the author describes clinical examples, themes likely to emerge, and homework (mostly reflection and journaling, but not additional art production) to occur between office sessions. The entire enterprise is directed toward uncovering, helping integrate the personality, healing and wholeness, and ultimately enhancing spiritual well being.

Included in this book are important considerations of understanding and dealing with transference and ethical issues that emerge in art therapy, conducting art therapy with families and groups, and handling termination.

I'm unaware of controlled trials examining the adjunctive use of well-conducted art therapy in various subpopulations of eating disorders patients, but this intelligent presentation makes me think they'd be worthwhile. As with most interventions, I doubt that these techniques would necessarily improve outcomes and add measurable value over other methods for every patient. However, after reading this book I can certainly think of several of my own patients who might benefit greatly. As the author nicely reminds us, "It is often said in the fields of counseling and psychotherapy that therapists cannot take their patients where they cannot go themselves. This extends to media properties and information processing preferences." In opening up my awareness about what art therapy might potentially offer, Dr. Hinz has shown me new areas in which I've never been. While I don't yet know if I can go there myself, my curiosity has certainly been peaked. I'm inspired to learn more, and I'd be very interested to know exactly how we can systematically explore the added values that art therapy may well provide.

— J.Y.

QUESTIONS & ANSWERS

Diet Colas—Concerns for Patients with Eating Disorders?

Q Many of my eating disorder patients seem to be drinking large amounts of diet colas. Does this pose any problems? (L.M., Charlotte, WV)

A The answer is clearly “yes.” Recent research has shed even greater light on the problems that diet colas may cause for women with eating disorders. First, many patients drink diet colas not only for their stimulant value but because they offer gastric volume without any calories, which is not necessarily a good idea for women with eating disorders.

Second, a large study (the Framingham Osteoporosis Study) showed that drinking diet cola daily put older women at greater risk for osteopenia of the hip compared to women who drank less than one serving per month. Bone mineral densities were about 4%-5% lower at several hip sites in cola drinkers (regular or diet) than non-cola drinkers. For women with eating disorders, who already have an increased risk of osteopenia and osteoporosis due to poor nutrition, depression, stress and, in many instances, cigarette smoking, each of which independently adds to the risk of bone loss, injecting yet an additional risk factor for depleting skeletal calcium is unwise. Of note, no significant relationships were found

among non-cola carbonated beverages and reduced bone mineral density. Also, these relationships were not seen in the men in this study (*Am J Clin Nutrition* 2006;84:936).

Finally, drinking diet or regular cola increases the risk of dental enamel erosion and dental decay. In the context of an eating disorder, sugar-containing sodas are worse, but since the pH of diet cola is 3.39, reasonably acidic, that in itself contributes to the risk of erosion. Here is even more bad news: light-colored sodas, canned iced teas, and energy sports drinks appear to be even worse for dental health than colas! (*Gen Dent* 2005; 53:28). Add this to the burden already imposed by frequent vomiting among patients with eating disorders and you markedly increase the likelihood of severe dental problems.

The best advice? Drink water.

—J.Y.

Oral Contraceptives and Bone Mineral Density

In a recent study of adolescent females with anorexia nervosa (AN) or eating disorder not otherwise specified (EDNOS), use of oral contraceptives did not have a significant effect on lumbosacral spine or hip bone mineral density (*J Adolesc Health* 2006;39:819).

Dr. G.R. Strokosh and colleagues designed a randomized, double-blind, placebo-controlled study of 112 females 11 to 17 years of age with EDNOS or AN to determine if oral contraceptives could affect bone mineral density. The girls were randomized equally to treatment with a triphasic oral contraceptive containing norgestimate, 180-250 mcg (NGM group) or to treatment with ethinyl estradiol, 35 mcg (EE group), or to a placebo.

At the end of the 6th cycle of treatment, there was a significant increase in the mean BMD of the lumbosacral spine in the NGM/EE group compared with placebo; however, by the 13th cycle, the difference was no longer significant. There was no significant difference in change in hip BMD among the three groups.

Nibbles by Hunter



IN THE NEXT ISSUE

The Transitional Phase of Treatment

By Dr. Kenneth L. Weiner

Includes practical guidelines to help recovering patients move toward independence.

PLUS

- Media Exposure and Disordered Eating
- How the Brain Drives Disordered Thoughts and Eating Behaviors
- Dental Clues to Eating Disorders
- Set Shifting Deficit in Patients with Anorexia Nervosa
- Trends in Obesity Among Chinese Teens
- How Accurate Are Skinfold Measurements Among Children and Teens?

EATING DISORDERS REVIEW™ SUBSCRIPTION COUPON

Gürze Books

PO Box 2238, Carlsbad, CA 92018
(800) 756-7533 • Fax: (760) 434-5476
gurze@aol.com

One-year subscription (six issues and index)

	Regular:	AED or IAEDP Members:
U.S.	<input type="checkbox"/> \$65.00	<input type="checkbox"/> \$52.00
Canada	<input type="checkbox"/> \$75.00	<input type="checkbox"/> \$62.00
abroad	<input type="checkbox"/> \$83.00	<input type="checkbox"/> \$70.00

Two-year subscription

	Regular:	AED or IAEDP Members:
U.S.	<input type="checkbox"/> \$115.00	<input type="checkbox"/> \$92.00
Canada	<input type="checkbox"/> \$135.00	<input type="checkbox"/> \$112.00
abroad	<input type="checkbox"/> \$151.00	<input type="checkbox"/> \$128.00

(All payments US \$ dollars)

Check enclosed Bill Me Credit Card

We accept Mastercard, Visa or American Express.

Card No: _____ Expr: _____

Name _____

Organiz. _____

Address _____

City _____ State _____ ZIP _____

Phone _____

Email _____