

The role of body image in the prevention of eating disorders

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Abstract

This article reviews theory and research pertaining to prevention of negative body image and eating disorders. Research derived from the social cognitive model (SCM) and non-specific vulnerability-stressor (NSVS) model indicates that sustained prevention effects for attitudes and behaviors are possible, but not easy to achieve or explain. These limitations are considered in the context of promising research derived from a third model, critical social perspectives (CSP). We conclude that (1) research on practice should aim beyond the examination of efficacy in order to clarify the active ingredients contributing to prevention; and (2) research informed by each of the divergent perspectives can be used to enrich theory and practice in the field of eating disorders prevention.

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The role of body image in the prevention of eating disorders

Negative body image is an important component of a variety of prevalent health problems in females such as depression, obesity, and the spectrum of disordered eating (Cash & Pruzinsky, 2002). This spectrum encompasses varying combinations and degrees of binge-eating and unhealthy forms of weight management such as restrictive dieting and self-induced vomiting. At the extreme end of the spectrum are the well-known syndromes of anorexia nervosa, bulimia nervosa, and binge-eating disorder. Not only are the

problems along this continuum widespread and serious, they are very difficult to treat effectively. Consequently, prevention of negative body image is a very desirable goal. Negative body image refers not only to body dissatisfaction but also to excessive cognitive and behavioral investment in one's physical appearance in defining one's sense of self (Cash, 2002a, 2002b). This article reviews theory and research pertaining to three prominent models of prevention and then offers specific recommendations for application of a critical social perspective in promoting positive body image in females. There is increasing concern about negative body image in boys and men (Pope, Phillips, & Olivardia, 2000), but this article concentrates on females because the link in boys between body image and disordered eating or unhealthy muscle-building strategies is not at all clear.

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Body image and disordered eating

Stice (2002) conducted a meta-analytic review of longitudinal studies examining the ability of body dissatisfaction (“negative body image”) and other hypothesized risk factors to predict increases in eating pathology (see also the narrative review by Shisslak & Crago, 2001). In general, data from these studies confirm that negative body image is an independent predictor of disordered eating. Overall, Stice’s (2002) review supports a model linking pressures to be thin from family, friends, and media to internalization of the slender beauty ideal and to overvaluation of appearance as a feature of self-concept. These components set the stage for negative body image, which in turn increases the probability of three interlocking components of eating pathology: dietary restraint, binge-eating, and negative affect. In summary, this research suggests that if negative body image could be prevented, the incidence of eating pathology would be reduced.

Prevention

“Prevention” refers to policies and programs designed to evade or forestall the development of disordered eating by protecting current states of health and effective functioning. Prevention subsumes avoidance of disease and disability, as well as promotion of enhanced health by increasing resilience to predictable or unforeseen stressors, such as the early adolescent transition.

Primary prevention—universal

One basic form of prevention tries to improve the well-being of very large groups (populations) of people. This type of “primary” prevention is also called “universal prevention” or “public health prevention.” It focuses on changing public policies, communities, and significant institutions. Objectification of girls and women plays an important role in the development and maintenance of negative body image in females. Therefore, an example of a universal prevention program would be a collaborative effort between the United States Department of Education and its National Institute of Mental Health to eliminate sexual objectification and harassment from public schools.

Primary prevention—selective

A second type of “primary” prevention is called *selective* because the programs focus on people who do not yet have the target problems, including negative body image, but who are at high risk due to biological, psychological, and/or sociocultural factors. One example would be an intervention enabling parents with bulimia nervosa to help their children, who are vulnerable due to modeling and genetic factors, to avoid this eating disorder. Piran’s (1999a, 1999b) work with male and female students in an elite ballet school is another example of selective prevention. Classroom curricula, designed for general use with adolescent girls in schools throughout the United States, Canada, Great Britain, and Australia, are somewhere on a continuum between universal (supported by public policy and intended for large groups within the general public) and selective (focused on adolescent girls as a high-risk population) primary prevention. For technical accuracy, we refer to such curricula as a “universal-selective” form of prevention. The status of curricular interventions on a continuum of prevention is complicated by the fact that a significant minority of adolescent girls in regular classroom settings will already have a negative body image and features of disordered eating.

Secondary prevention—targeted

A third category is called targeted or “indicated” prevention (or in older parlance, secondary prevention). The audience here does yet not “have” the full-blown problem (e.g., eating disorder not otherwise specified), but is at risk because of the presence of clear precursors (e.g., negative body image). An example of targeted (secondary) prevention would be a manualized cognitive-behavioral program to help improve body image in young college women who are seeking help for their body image problems and who have high scores on the Body Shape Questionnaire.

Two prevention models

Social cognitive theory

Sociocultural factors create, shape, and maintain the beliefs, emotions, motives, and behaviors that

comprise the continuum of disordered eating. The female gender role, negative body image, uncontrollable fear of fat, binge-eating, and unhealthy weight management practices are acquired through social learning and consolidated through cognitive and behavioral processes (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Consequently, most of the universal-selective and targeted prevention programs addressing disordered eating have been guided by either Bandura's social cognitive theory (e.g., Killen, 1996) or cognitive behavioral theory (Stewart, 1998). Programs derived from these interrelated approaches, which we term the social cognitive model (SCM), have been moderately successful in preventing substance abuse and cardiovascular disease (Botvin, 2000; Perry, 1999).

According to the SCM, body image is a multidimensional construct affected by multidimensional factors in the past and present (Cash, 1997, 2002b). Some important elements of negative body image are (1) overvaluation of appearance in constructing one's identity; (2) a perception and feeling that one's body shape is quite discrepant from (what some people see as) unrealistic internalized beauty ideals; (3) maladaptive beliefs and negative feelings about one's body, including its shape, and (4) unhealthy or limited behaviors motivated by body dissatisfaction. The principle of reciprocal determinism proposes that various aspects of disordered eating, and especially negative body image, reflect transactions between cognitive and emotional processes "within" the person, the person's behavioral competencies and tendencies, and sociocultural factors such as the glorification of slenderness by mass media and stigmatization of body fat and obesity by peers who engage in teasing and "fat talk." Prominent cognitive processes are involved in the internalization of the slender beauty ideal, development of beliefs that constitute a thinness schema, and a tendency to compare one's weight and shape to the bodies of various other people, such as peers and celebrities (Thompson et al., 1999). SCM programs try to decrease these risk factors while increasing healthy attitudes and behavior related specifically to body image and to healthy eating and exercising.

Detailed description and analysis of SCM programs are provided elsewhere (e.g., Levine & Piran, 2001; Levine & Smolak, 2003). Some of the basic elements are (1) exercises for understanding and im-

proving body image, including analyzing and changing unhealthy beliefs about one's own weight and shape; (2) instruction in nutrition and exercising as they pertain to healthy weight control; (3) information about the clash between developmental factors (e.g., pubertal weight gain) and cultural messages that idealize thinness and create fear of fat; and (4) instruction in individual strategies for analyzing and resisting the messages from media, family, and peers that calorie-restrictive dieting is a healthy practice. In general, SCM prevention programs are implemented in the schools by classroom teachers or mental health professionals using predetermined curricular lessons. "Social learning" is fostered by brief lectures, observational learning, role playing, and guided discovery in group discussions and homework assignments. Goal-setting, behavioral rehearsal with feedback, and directed practice are a part of some universal-selective SCM prevention programs, but it is rare for these behavioral techniques to be applied to body image.

Non-specific vulnerability-stressor model

There is a non-specific relationship between psychological problems (including eating disorders) and negative self-concept, lack of coping skills and other behavioral competencies, life stress, and lack of social support (Cowen, 2000). For example, many studies have found that in children negative body image is correlated with poorer self-esteem and general dissatisfaction with life (Ricciardelli & McCabe, 2001). This means that children, youth, and their communities will be healthier when those communities encourage the "five C's" of youth development (Lerner, Fisher, & Weinberg, 2000): Competence, Connection, Character, Confidence, and Caring (Compassion). According to this non-specific vulnerability-stressor (NSVS) model (Levine & Piran, 2001), people benefit in multiple ways from opportunities to develop general "life skills" for stress management, decision-making, and communication (Botvin, 2000). In cultures where unhealthy attitudes about gender, adolescence, and identity abound, it is particularly important for people to integrate social interest and social skills with a positive sense of the self as unique, competent, and connected to others. Given that stressors and lack of opportunity play an important role in mental disorder, the NSVS model advocates the need for social changes that give

people a chance to succeed in building relationships and doing meaningful things.

The two models: prevention outcomes

Most effective programs: universal-selective

A truly effective prevention program would reduce the number of new cases, i.e., the incidence, of eating disorders by minimizing the existence or impact of risk factors such as negative body image. Compared to a similar group of healthy people who did not receive the preventive intervention, valid assessment of program participants would reveal that they had fewer instances of disordered eating over a meaningful period of time (e.g., from ages 13 to 20). To date, only four universal-selective programs using the social cognitive model and/or the NSVS model have approached even a generous interpretation of these criteria for effectiveness.

SCM programs

In the United States, Smolak and coworkers evaluated a 10-lesson curriculum for girls and boys ages 9–11 (see Smolak & Levine, 2001, for a summary). Brief presentations, individual and small group activities, and homework assignments promoted healthy eating and exercising, positive body image, skepticism about calorie-restrictive dieting, and tolerance of and appreciation for diversity in weight and shape. Teasing was defined as harmful and clearly unacceptable. A 2-year longitudinal follow-up used a new control group of young adolescents from schools not included in the original study (Smolak & Levine, 2001). Compared to this new control group, girls and boys (now ages 11–13) who participated in the program were more knowledgeable and used fewer unhealthy weight management techniques, while girls in the program had higher body esteem. Scores of the original control group were intermediate, suggesting that the program's intentional sociocultural impact may have "spilled over" to influence control participants within the same elementary schools. This phenomenon is well recognized in the substance abuse prevention literature.

Neumark-Sztainer, Butler, and Palti (1995) conducted a controlled evaluation of a 10 h curriculum that

taught Israeli girls ages 15–16 about nutrition, exercise, physical and psychological development in adolescence, and ways to understand, resist, and actively change sociocultural factors at school and at home. Lesson #7 addressed the determinants of weight-and shape satisfaction, and then required students to gather systematically information about positive features of their body and to think carefully about aspects of identity unrelated to appearance. At 6-month follow-up, girls participating in the program had more regular eating patterns, exercised more frequently, and were less likely to initiate unhealthy dieting and binge-eating. There was a similar, nonsignificant trend at the 2-year follow-up. There were no effects on body satisfaction.

An SCM-NSVS program

Santonastaso et al. (1999) engaged 16-year-old Italian girls in four 2 h presentations and group discussions. The topics were pubertal changes, including weight gain; body image; sociocultural aspects of eating and of the idealization of slenderness; and general challenges in coping with adolescence. There were no specific exercises for improving body image. Nevertheless, at 1-year follow-up the program had a significant preventive effect on the body satisfaction and bulimic behavior of "low risk" participants.

An NSVS program

Everybody's Different is a nine-lesson school-based program designed to "improve body image by building general self-esteem" (O'Dea & Abraham, 2000, p. 45). Lessons are initiated by the classroom teacher, but the approach to learning is group-oriented, interactive, cooperative, and student-centered. Instead of addressing weight, shape, eating, etc. directly, the program encourages knowledge, values, and life skills that increase a general, multifaceted sense of self-worth, which should anchor healthy body esteem. One such life skill is the ability to seek and receive positive feedback about appearance and other positive personal characteristics. In addition, activities for feeling connected to, safe within, and respectful of one's body are practiced at school and at home.

O'Dea and Abraham (2000) conducted a controlled evaluation with Australian girls and boys ages 11–14.5. At post-test participants in *Everybody's Different* showed significant improvements in several measures of body satisfaction, but all save one of these

positive effects were no longer significant at 1-year follow-up. However, the program was successful in the short and long term in decreasing concerns about physical appearance, athletic competence, and social acceptance. These benefits occurred in all weight groups. On the other hand, in terms of preventing eating disorders, there were no significant effects for EDI subscale scores other than the pre-to-post increase in body dissatisfaction.

Most effective programs: targeted

Cognitive-behavioral body image therapies

As noted previously, young women with negative body image tend to suffer from social anxiety, low self-esteem, depressive symptoms, and unhealthy forms of eating and weight management. Thus, a number of researchers, led by Cash and Rosen, have devised cognitive-behavioral therapies (CBT) for improvement of body image (see Cash & Hrabosky, *in press*, for an in-depth review). Participants are already suffering, so CBT is not a form of primary (universal or selective) prevention; however, since negative body image is a risk factor for eating disorders (Stice, 2002), CBT does constitute targeted prevention.

Cash's widely used CBT program includes (1) psychoeducation about the nature and causes of body image; (2) training in self-monitoring to assess the specific situations that influence body image, the cognitions and feelings constituting body image, and the effects of body image on behavior; (3) guided exercises for challenging unhealthy cognitions and for developing more positive, adaptive beliefs and thoughts about appearance; (4) development of skills for mastering situations that have previously generated body image anxiety and unproductive behaviors such as avoidance; and (5) relapse prevention (see Cash, 1997, for the current version; see also Cash & Hrabosky, *in press*). In a series of controlled and uncontrolled outcomes studies both Cash and Rosen and their coworkers have found that, over 3-to-6-month follow-up periods, this type of program causes meaningful improvements in various important components of body image, as well as in self-esteem and social confidence (Cash & Hrabosky, *in press*). More research is needed to demonstrate whether a sustained prevention effect in terms of eating disorders or dysfunctional eating attitudes and behaviors can be

achieved. Nevertheless, in practical terms this form of targeted prevention is promising because it is relatively brief (1–3 months) and can be applied equally effectively in individual, group, and self-help formats.

Student bodies

Taylor and coworkers have conducted a series of studies to evaluate a computer-assisted psychoeducational program (CAPP) for college women (Taylor, Winzelberg, & Celio, 2001) and, very recently, for high school girls (Abascal, Bruning, Winzelberg, Dev, & Taylor, 2002). *Student Bodies* is an 8-week intervention designed to reduce body dissatisfaction and weight concerns. Participants receive multimedia psychoeducation about body image, the development and consequences of eating disorders, and healthy nutrition and exercise. Some of the information provided is contained in a sub-curriculum entitled *Body Traps* (Springer, Winzelberg, Perkins, & Taylor, 1999), which helps participants take an historical and critical look at multidimensional determinants of body image. This critical perspective is reinforced by cognitive-behavioral exercises (Cash, 1997; see above), three moderated face-to-face discussion sessions, and computer-based exchanges designed to increase connection between the participants.

Although this program technically does not “target” young women at risk, those who respond to recruiting advertisements seeking women “with a desire to improve body image satisfaction” tend at *pretest* to have high levels of body dissatisfaction and weight concerns. Compared to a wait-list control, women randomly assigned to receive this version had (at 3-month follow-up) significantly improved attitudes and behaviors in regards to weight, shape, and eating (Taylor et al., 2001). In a study that did recruit young women with high scores on the BSQ, Zabinski et al. (2001) assessed *Student Bodies* and found moderate effect sizes for body dissatisfaction, EDI drive for thinness and a composite measure of disordered eating. However, the behavioral effects were very limited.

As a CAPP, *Student Bodies* permits some tailoring to the needs of individual participants. This creates the potential for combining universal and targeted prevention in a school setting. Abascal et al. (2002) assessed the impact of *Student Bodies* on girls ages 15–16 attending a private school. The girls were assigned to four groups formed from a cross of

high-low risk and high-low motivation for change. The broadest improvements and most positive feelings about the program were demonstrated by high-risk girls with high motivation to change.

Dissonance-based prevention

Stice and coworkers have created a “dissonance-based” program to reduce risk factors and eating disorder symptoms in college women with “elevated body image concerns” (Stice, Mazotti, Weibel, & Agras, 2000; Stice, Trost, & Chase, 2002). During the course of three 1 h sessions, participants work in small groups to create a “body acceptance program” ostensibly for high school girls. Typically, these groups critically analyze origins and effects of the thin ideal, how it is perpetuated, and who benefits. Participants also complete body acceptance exercises, as well as a counter-attitudinal role-play and a counter-attitudinal essay challenging the thin ideal.

Stice et al. (2000) found that, compared to a no-intervention control, the dissonance program was successful at 1-month follow-up in reducing thin-ideal internalization, body dissatisfaction, and bulimic symptoms. However, a comparative outcome study by Stice et al. (2002) of high school and college students found that the dissonance program was not more effective than a healthy weight management condition, and that neither was particularly effective in producing sustained improvements in thin-ideal internalization, body satisfaction, or dieting, although both were somewhat effective in reducing bulimic symptoms. More research is needed to clarify the active ingredients of the dissonance intervention and how to create conditions for a sustained effect on body dissatisfaction and other risk factors.

Brief literature review

Universal-selective programs

As of July 2003, Levine had obtained 63 published and unpublished studies of universal-selective prevention (including media literacy) in youth ages 8–18. Approximately 78% ($n = 49$) are experimental or quasi-experimental, i.e., they have a reasonable control group. Of the controlled studies, 37 (75.5%) can be categorized as applying the social cognitive model and/or NSVS model based on the study’s introduction or description of program components (see Levine &

Piran, 2001). Of those 37 studies, 26 (70%, or 41% of all the studies) included activities and exercises (not just information) explicitly designed to improve body image. All but one of the 26 are classroom-based didactic programs (mean time ~ 8 h), delivered without tailoring to individuals with different levels of risk or symptomatology (i.e., the focus is universal or primary prevention).

About 90% of the SCM-NSVS programs improved knowledge, 44% had at least one positive effect on attitudes, and only 4 of 26 (15.5%) had at least one significant behavioral effect at final point of assessment. SCM-NSVS programs that included specific exercises for improving body image were not more effective than the other SCM-NSVS programs. For example, 48% of those with body image exercises had at least one significant effect on attitudes relevant to disordered eating, as compared to 36% of the remaining programs, $\chi^2(1) < 1$, ns.

Levine and Smolak (2003) refer to the pattern of modest posttest improvements in knowledge, attitudes, and/or behaviors while a program is ongoing, coupled with no significant or extensive long-term effects except perhaps for knowledge, as the “program participation effect.” Out of 20 prevention studies (in the USA, UK, Canada, Italy, and Australia) that reported data for post-program and follow-up effects, 11 (55%) demonstrated this phenomenon (e.g., Dalle Grave, de Luca, & Campello, 2001; Stewart, Carter, Drinkwater, Hainsworth, & Fairburn, 2001). Most likely, this phenomenon indicates a need for more potent programs, specifically interventions that (1) deepen students’ involvement in critical analysis of culture; and (2) work with students and adults to change the environments (or ecologies) that affect body image and other risk factors for disordered eating (Piran, 1999b, 2001; see also Levine & Piran, 2001).

This brief review shows that prevention programs definitely can have a positive *short-term* effect on knowledge, body image, the glorification of thinness, and eating behaviors. However, maintenance of long-term attitudinal and behavioral changes, as well as demonstration of full prevention effects, remain elusive goals. Moreover, we are a long way from understanding the key processes for producing the desired changes. The only thing the four fairly effective programs reviewed earlier have in common is that they encourage students to think critically about the

clash between developmental factors (e.g., pubertal weight gain, nutritional needs for strength and vigor in adolescence) and cultural contexts that idealize thinness and vilify fat and fat people.

Targeted programs

Research with college students and, in a few instances, with high school students suggests that multi-session, intensive targeted prevention programs can be modestly effective (see, e.g., Cash & Hrabosky, *in press*; Taylor et al., 2001). To date, the various interventions include those described earlier, as well as eating disorder courses for college credit. In a recent meta-analysis of prevention outcome studies that permit a comparison of change scores for experimental and control conditions, Stice and Shaw (2003) found that, in general, targeted prevention programs had a small, positive effect on body dissatisfaction and eating pathology. Stice has long been an advocate for targeted prevention, but a review of this literature indicates that this approach has the same major problem facing claims about universal-selective prevention: lack of high quality studies producing multidimensional and meaningful positive effects on mediators and on eating pathology over a meaningful long-term follow-up (see also Cash & Hrabosky, *in press*).

Critical social perspectives on the body and body image

A third model is called critical social perspectives (CSP). This model extends Piran's previous work on the Empowerment Relational approach to prevention (Piran, 1995, 1999b, 2001; see also Levine & Piran, 2001). The CSP model examines the body as both a personal and social domain, located at the intersection of the individual and various social systems. This model recognizes that women's personal experiences of their bodies, as well as their practices towards their bodies, are anchored in and shaped by complex social systems that need to be clarified in order to guide constructive transformations (Bordo, 1993; Foucault, 1979; Weedon, 1997; Wolf, 1991).

Six unique aspects of the CSP model could enrich current concepts of body image and disordered eating patterns. First, "subjective" experiences such as body image and body practices are comprised of

learned meaning systems anchored in dominant cultural discourses and power structures. Second, social inequity, often maintained by widely sanctioned ideologies, plays a central role in disrupting girls' and women's experiences of their bodies. Third, in understanding the impact and role of inequitable social systems, one must go beyond pressures for thinness to examine critically factors such as the objectification of women bodies or the spectrum of violation of body ownership (Fredrickson & Roberts, 1997; Piran, 2001; Smolak & Murnen, 2001). Fourth, the CSP model emphasizes continuities between expressions of negative body image or eating disorders and either other behavioral expressions of disrupted body experiences found more commonly in girls and women than in males, such as self-harm behaviors (Rohde, Lewinson, & Seeley, 1991), or common descriptions of subjective distress in women's relationships with their bodies, such as "discontent" (Rodin, Silberstein, & Striegel-Moore, 1984), "betrayal" (Martin, 1987), "fight" (Martin, 1996), or "struggle" (Foster, 1994). Piran (2001, 2002) has suggested that these challenges be examined as context-laden problems of embodiment. Fifth, the CSP model examines the complexity and diversity of social contexts, emphasizing how they intersect with structures of privilege along the dimensions of gender, race, socioeconomic status, sexual orientation, and other factors. This means that the models of body weight and shape preoccupation driving specific prevention efforts would need to be carefully tailored to the specific factors operating in the setting of the interventions, rather than guided by a general or universal etiological theory. Finally, and along the same lines, the CSP model is concerned with power. In what relational contexts do females learn, often in an unconscious fashion, about social rights and worth? What systems operate to collude with, or resist, dominant social discourses regarding gender, women's and men's bodies, sexuality, and control?

Research supports incorporation of critical social perspectives into the conceptual study of negative body weight and shape preoccupation, even though this research is still limited in scope compared with the volume of research about weight- and shape-related social pressures (Thompson et al., 1999). For example, a series of quantitative cross-sectional studies with girls and young women by Silverstein and Blumenthal (1997) has shown the positive associations between

the experience of gender inequity at home and a cluster of eating and other somatic symptoms in young adult and adolescent women. Using the divergent methodology of participatory action (Brydon-Miller, 1997), Piran (2001) found that the issue of gender equity was central to girls' own understanding of body weight and shape preoccupation in their school and in the strategies they formed to change their experience.

As noted previously, critical social perspectives have expanded the realm of social experiences studied beyond issues of thinness and weight (Smolak & Murnen, 2001). For example, sexual harassment and gender harassment are interrelated expressions of social inequity that lead to adverse consequences in girls and women. Piran (2002) has tested, using structural linear equations, a social model of eating disorders comprised of two predictive constructs: (1) violation of body ownership, including physical and sexual abuse and harassment; and (2) exposure to gender and weight prejudice. All goodness of fit indicators, as well as structural pathways, were found to be highly significant when tested on a community sample of 340 young women, and then cross-validated on a university sample of 436 young women. In fact, a number of qualitative studies strongly suggest the adverse impact of sexual harassment on the experience of the body and self (Larkin, Rice, & Russell, 1999; Murnen & Smolak, 2000; Piran, 2001). This research supports the importance of expanding theories of eating disorders to incorporate multiple social experiences, especially those associated with belonging to a less privileged group.

Social inequities are also expressed through widely sanctioned ideologies and social discourses. Socially constructed dichotomies, such as *men/women* and *White/Black* help maintain the social status quo through idealizing one side and devaluing the other. Internalization of qualities devalued by the culture at large can be seen as a social stressor leading to varied expressions of disruptions. Indeed, a meta-analysis of 22 studies involving 2332 women revealed a positive relationship between femininity and eating problems and a negative relationship between masculinity and eating problems (Murnen & Smolak, 1997). The impact of resistance to devaluing social discourses can be examined as well. Dionne, Davis, Fox, and Gurevich (1995) and Snyder and Hasbrouck (1996) found an inverse relationship between feminism and

women's negative feelings about their bodies. Although Cash, Ancis, and Strachan (1997) found minimal associations between body image and feminism, women's adoption of traditional gender-role attitudes about male-female relations was clearly associated with greater body image investment, dissatisfaction, and distress. Steiner-Adair (1986) found a greater association between eating disorders and the discourse of the 'super woman' among White, middle class, adolescent girls as compared with adolescent girls embracing the resistance discourse of a 'wise woman' who values interdependence.

Fredrickson and Roberts (1997) and McKinley and Hyde (1996) have described the disruption in girls' and women's experiences of the body and self that are caused by the privileged patriarchal gaze through which they learn to view themselves. A productive line of socially critical research has confirmed that incorporation by women of the objectified gaze of their bodies is associated with poorer body and self esteem and with disordered eating patterns (McKinley, 1998; Noll & Fredrickson, 1998). As widely sanctioned social discourses are incorporated into the meaning- and affect-laden "images" that women construct of themselves and their bodies, different adaptations and practices occur, and some will include disordered eating patterns.

To date, the bulk of the quantitative research which has examined girls' and women's disrupted connection with their bodies has relied on cognitive-behavioral measures of the body image construct such as the Body Shape Questionnaire or the EDI-II Body Dissatisfaction subscale. According to the CSP model, this approach incorporates the ideology of the centrality of appearance in women's lives while de-emphasizing other disruptive experiences in relation to the body. Based on her "life history" studies of young women about their "lived experiences" of growing up in a girl's and young woman's body, and based as well as on her participatory action research with girls, Piran (2001, 2002) has argued for the validity and utility of examining the construct of *disrupted embodiment* (or *disembodiment*) rather than body image disturbance. This construct refers to a psychological disconnection from, and thus a mistrust of, the experience of being in control of and in tune with one's body as a source of meaningful needs, pleasure, nurturance, and strength. It combines

self-conscious treatment of one's own body as an unreliable, malleable "object" (versus embodied subjectivity) with disavowal of feelings connected to the body's own wisdom. This construct is the basis of ongoing cross-sectional and prospective studies to examine the relationship between disordered eating patterns and factors related to social structure. If empirical support for this critical perspective regarding social power and privilege continues to accumulate, there are significant, specific implications for prevention (and for treatment) of "body image problems."

Implications of social critical perspectives for prevention

Subjectivity and knowledge construction

According to the CSP model, "subjective" experiences of the body are inherently anchored in and comprised of meaning systems that are constructed within a particular historical and social context. This means that through the critical examination of subjective experiences, program participants can derive knowledge about the relevant (context-specific) social structures and ideologies that have positive or negative effects on their experience of their bodies. A socially critical approach to prevention, therefore, relies not on predetermined curricula drawn from general theories and generally applicable "lessons," but rather on the subjectivity of participants to arrive at socially informative knowledge.

Critical voices

The CSP model values processes which lead to an understanding of the social forces which shape individual experience. Quite simply, the model values *critical* knowledge. One particular approach to deriving critical knowledge is the consciousness raising process (MacKinnon, 1989; Weedon, 1997) whereby the collective discussion of personal experiences leads to the construction of alternative socially critical understandings. These discourses of resistance can guide transformative action.

Contextualized knowledge

A multiplicity and diversity of social contexts shape the bodily experiences of girls and women. The historically and socially located knowledge of program participants will necessarily lead to different "local"

understandings of the factors that are relevant to body images and levels of embodiment. Similarly, a format which allows for exploration of critical knowledge embedded in participants' experiences may reveal unexpected connections between seemingly different body-anchored and self experiences. A socially critical prevention program has to employ a format that allows for this diversity in understandings and thus for a spectrum of emergent issues.

Agency and empowerment

The critical understanding arrived at by program participants about the social forces shaping their personal and interpersonal experiences is seen as inextricably tied to transformative actions that aim to enhance social empowerment, agency, and activism. If body-anchored experiences are understood to be tied to varied oppressive structures, then agency in transforming adverse conditions is central to preventing difficulties.

Relational contexts

Critical knowledge construction is often grounded in group processes of exploration and reflection (Freire, 1970; McKinley, 1998; Piran, 1999b). According to the CSP model, groups have the potential to become places of connection where alternative norms of discourse and of being together are practiced, thus providing a relational space that counters oppressive systems. In this context, adult facilitators of groups serve to model the embodiment of constructive alternative norms.

Changing systems and experience

Ultimately, through critical knowledge construction, through development of new norms and practices within an empowering group, and through social activism, social systems can be transformed in a way that facilitates positive embodiment and prevents difficulties. In this process the experience of the body is shifted from a site of vulnerability and shame to a site of knowledge and agency.

Examples of CSP programs

The ballet school study

The long-term, intensive program developed and described in detail by Piran (1999a, 1999b) in a resi-

dential, elite dance school comprises the first program that has explicitly adopted a critical social perspective format. This program has followed the participatory action paradigm described by Freire (1970). Emphasizing critical knowledge construction by student groups, the program produced significant changes in attitudes and behaviors by applying the principles of the CSP model in order to transform the school culture and the school as a system. Program evaluation did not include a traditional experimental-control comparison. Rather, the eating attitudes and behaviors of all female students ages 12–18 were surveyed at baseline, 4 years later, and 8 years later. Over time and across the three different sets of students, the prevalence of anorexia nervosa was reduced 10-fold, bulimia nervosa was eliminated, and binge-eating and unhealthy weight management were significantly reduced.

Full of Ourselves

Several other programs have been recently developed that, although they are curricular and thus predetermined in significant ways, incorporate some significant components of the CSP model. *Full of Ourselves*, a participatory program for girls ages 12–14, was developed in the United States with consultation from Piran (Steiner-Adair et al., 2002). This eight-unit curriculum has significant elements of the SCM, the NSVS model, and the CSP model. It uses a large number of activities to help girls become more assertive and more supportive of each other as they learn to how to think critically about cultural messages pertaining to gender, beauty, weight-related prejudice, and eating. The girls are explicitly encouraged to have a sense of self and substance in the world, including taking active leadership roles in social justice issues concerning body image. The girls also work closely with trained adult mentors and serve as mentors themselves for girls ages 9–11. In a large-scale controlled evaluation, Steiner-Adair et al. (2002) found that program participants showed a sustained increase in knowledge about prejudice, mass media, and health. Moreover, as predicted, they also had sustained improvements in body satisfaction. There were also program participation effects for global self-esteem, negative self-talk about the body, and for internalization of the slender beauty ideal. However, there were no significant effects on weight management *behavior* (including use of dieting as a means of coping with stress) or physical activity.

Free to be Me

Neumark-Sztainer, Sherwood, Collier, and Hannan (2000) randomly assigned half of 24 US Girl Scout troops (mean age = 10.5) to a control condition, while the remainder received the program *Free to be Me*. Although Neumark-Sztainer works from a social cognitive model (e.g., Neumark-Sztainer et al., 1995), many themes in the six 90 min lessons encompassed some key features of the CSP approach. For example, the girls were encouraged to be activists in helping peers and the mass media to establish healthier norms. In this regard the girls critically evaluated advertisements and then wrote letters to businesses to point out problems with advertisements and to advocate for healthier images. These letters were posted on the National Eating Disorders Association (NEDA) web site (<http://www.nationaleatingdisorder.org>) to promote activism and advocacy by other girls. At 3-month follow-up *Free to be Me* had several positive effects. The girls were less likely to read *Seventeen* magazine, which promotes a feminine identity based primarily on appearance and fashion; internalization of the slender ideal was reduced; and the girls' self-efficacy in regard to their ability to be activists and thus affect weight-related social norms was increased. Yet, there was no effect on dieting, and there was a clear program participation effect for the modest pre-to-posttest improvements in body-related knowledge and body size acceptance. This study does suggest that the critical perspective known as media literacy holds a great deal of promise as one component of an ecological approach to prevention.

GO GIRLS!

Similar results have emerged from two recent applications of NEDA's media literacy curriculum called GO GIRLS!TM (Levine, Piran, & Stoddard, 1999; Piran, Levine, Irving, & the EDAP/NEDA staff, 2000). GO GIRLS!TM (further abbreviated *GG*) is an acronym for *Giving Our Girls Inspiration and Resources for Lasting Self-esteem*. *GG* adopts a critical social perspective because it engages high school girls in (1) detailed analysis of advertisements containing positive and negative messages about weight, shape, and gender roles; (2) activism to protest negative messages and to praise positive messages; and (3) creating and implementing advocacy projects that address and/or use mass media. Thus, *GG* is

an organized but flexible set of media-related activities by which an adult mentor helps adolescent girls to understand—through experience, observational learning, and action—that they have a “voice” as consumers, citizens, and activists.

The pilot application of the program (Levine et al., 1999) demonstrated program feasibility, as well as the potential for some exciting activism projects initiated by the girls. In the second pilot application (Piran et al., 2000) data from 72 participants in 8 GG groups (most of whom were ages 16–18) in five states were compared to a convenience sample of 90 girls from the same schools. Following an average program length of 3 months, GG participants had a reduced internalization of the slender beauty ideal, a reduced drive for thinness, and a greater sense of both self-acceptance and empowerment as citizens. The girls’ personal statements and their activism projects suggest that the essential ingredients of this media literacy program were the modeling of an active, critical perspective by the adult mentor, coupled with the chance to use one’s knowledge and skills in a creative fashion in order to make a difference in the world. Despite these positive effects, and consistent with previous media literacy research, there were no between-group differences in weight concerns or dieting behavior.

Some of the positive outcomes of a media literacy program based on the CSP model are not easily captured by psychometric data. For example, the Red Wing (MN) GG group, led by veteran eating disorders expert and activist Sarah Stinson, has incorporated as a non-profit organization called *Higherself* (<http://www.redwinghigherself.com>), presented at professional conferences, and testified before Congress in Washington, DC, as part of advocacy efforts to promote the Eating Disorders Awareness, Education, and Prevention Act of 2003 (H.R. 873) and the Senator Paul Wellstone Mental Health Equitable Treatment Act (S.486; see <http://www.eatingdisorderscoalition.org/legupdate>). The Red Wing GG has certainly made itself a site of embodied agency.

Conclusions and future directions

Prevention research to date has aimed at answering one question: Does prevention of disordered

eating work, comparing intervention to no intervention? We are starting to come up with somewhat promising answers to this question. Targeted (secondary) prevention programs such as Cash’s CBT and the *Student Bodies* CAPP for college students can indeed improve body image, reduce drive for thinness, and affect eating attitudes and behaviors. Universal-selective (primary) prevention programs in the form of classroom curricula or activities for Girl Scouts can certainly affect more than knowledge. Many programs have produced changes in attitudinal and motivational variables. This is particularly true in (1) programs for children ages 6–11; (2) programs for youth ages 12–14 that include significant aspects of the critical perspectives model; and (3) the *Student Bodies* CAPP for college students. Further, several universal-selective programs have demonstrated longer term (6–12 months) prevention effects in the eating attitudes and behaviors of youth ages 8–18.

That said, the limited size of universal-selective and targeted prevention effects (Stice & Shaw, 2003) and the frequent occurrence of the program participation effect both indicate the need for more powerful prevention programs. One important aspect of state-of-the-art prevention work in the area of substance abuse is missing from all but a few eating disorders prevention studies (e.g., Neumark-Sztainer et al., 2000; Piran, 1999a)—namely, a focus on changing multidimensional aspects of environment, such as school policies, teacher behavior, and mass media in the community (e.g., Pentz et al., 1989). A more systemic approach is also needed in order to design prevention programs that integrate universal, selective, and targeted approaches.

To date, research on universal-selective and targeted prevention has two other glaring shortcomings. First, there is a dearth of controlled studies that measure the impact of the program on eating pathology over a long follow-up period. Second, the outcome evaluation research currently available provides little information about the “active ingredients” of prevention. We know precious little about the essential program components that induce attitudinal and behavioral change, let alone the mediating variables in the process of change. This information is very important to enhancing the effectiveness of prevention. Successful programs to date have used varied approaches to prevention, including one systemic program for middle school students

that attempted to prevent obesity and ended up inadvertently preventing purging and use of diet pills in girls who were initially not dieting (Austin, Field, & Gortmaker, 2002). In order to clarify the “active ingredients” of prevention, outcome studies should be designed with comparison groups that differ in their exposure to specific hypothesized active components of a program (see Cash & Hrabosky, *in press*; Stice et al., 2002, for a few examples in the area of targeted prevention). Barring that, and considering the preliminary stage of this research, even exploratory qualitative inquiries with program participants about what they found most helpful may prove useful.

Similar to the field of psychotherapy, it is also possible that the different approaches to prevention described in this paper share “nonspecific” factors that contribute to prevention. Based on research concerning the prevention of substance abuse, and based on the critical social perspectives model for the understanding of body image, likely candidates are the voicing of a critical look at the culture and the development of healthy norms and values within the group (Botvin, 2000). Research on practice should aim beyond the examination of efficacy in order to clarify the active ingredients contributing to prevention. We believe that research informed by each of the divergent perspectives described in this paper can be used to enrich theory and practice in the field of eating disorders prevention.

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