Self-Help for a Negative Body Image: A Comparison of Components of a Cognitive-Behavioral Program

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Cognitive-behavioral therapy (CBT) is an empirically supported treatment of body-image dissatisfaction and dysphoria, even when largely self-administered with only modest therapist contact. The present investigation compared the relative effectiveness of selected components of Cash’s (1997) body-image CBT program administered in self-help modality. Participants were 89 body-dissatisfied persons who enrolled in the program and were randomly assigned to one of two 6-week, self-help conditions: (a) psychoeducation plus self-monitoring, or (b) this intervention combined with procedures to identify and alter dysfunctional body-image cognitions. All assessments and materials were distributed and returned by postal mail. Among program completers, both conditions produced statistically and clinically significant improvements in multiple facets of body image and psychosocial functioning. Despite high levels of program attrition (53%), results were confirmed by the more conservative intent-to-treat analyses. Predictors of attrition were identified. Further analyses ruled out several variables as moderators of program effectiveness. The unexpected lack of differential effectiveness between the two self-help conditions was possibly the result of low compliance with the added cognitive-change components. We discussed the limitations and implications of our findings vis-à-vis the clinical use and scientific study of components of body-image CBT in various modalities of program delivery.

Negative body image is a common problem, especially among girls and women in Western or westernized societies (Cash & Henry, 1995; Feingold

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& Mazzella, 1998). Body-image dissatisfaction may lead to other psychosocial difficulties (Cash & Pruzinsky, in press), including eating pathology (Cash & Deagle, 1997; Stice, in press; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999), depression (Noles, Cash, & Winstead, 1985), social anxiety (Cash & Fleming, in press-a), diminished quality and quantity of sexual experiences (Wiederman, in press), and low self-esteem (Powell & Hendricks, 1999). Simply stated, body image experiences impact the quality of life (Cash & Fleming, in press-b).

Body-image cognitive-behavioral therapy (CBT) has evolved as a means to help persons with body-image dissatisfaction and dysphoria (Cash & Strachan, in press). Controlled and comparative studies have consistently established its efficacy in individual (Butters & Cash, 1987; Dworkin & Kerr, 1987) and group therapy formats (Fisher & Thompson, 1994; Grant & Cash, 1995; Rosen, Cado, Silberg, Srebnik, & Wendt, 1990; Rosen, Saltzberg, & Srebnik, 1989). This empirically supported treatment has successfully produced body-image change among obese persons (Rosen, Orosan, & Reiter, 1995) and patients with body dysmorphic disorder (Rosen, Reiter, & Orosan, 1995). Elements of body-image CBT are incorporated in many eating disorders treatments (Rosen, 1996).

Cash (1991, 1995, 1997) developed and published audiocassette and bibliotherapy versions of a body-image CBT program. Consistent with metaanalytic evidence of the efficacy of various self-administered treatments (Gould & Clum, 1993; Marrs, 1995; Scogin, Bynum, Stephens, & Calhoon, 1990), largely self-directed CBT improves multiple facets of body image and psychosocial functioning, while reducing eating pathology (Cash & Lavallee, 1997; Grant & Cash, 1995; Lavallee & Cash, 1997). However, unlike pure self-help, each of these studies of self-directed body-image CBT involved some degree of structured contact with a therapist or program assistant, whether face to face or by telephone. Even such modest contact may convey expectations of participant accountability, provide support, assist in problem solving, reinforce procedural compliance, or exert other influences on outcomes.

The purpose of the current investigation was to evaluate selected components of Cash's (1997) most recent program of body-image CBT — *The Body Image Workbook: An 8-Step Program for Learning to Like Your Looks*. We followed a protocol to approximate the sample and the contextual conditions of “usual care” — namely, persons who anonymously attempt to change their body image solely with self-help materials. Applied to a self-help context, this goal is analogous to the evaluation of “treatment effectiveness” versus “treatment efficacy” (Ingram, Hayes, & Scott, 2000). Using a component control design (Haaga & Stiles, 2000), we sought to ascertain the effectiveness of certain elements of the program. One component entails body-image psychoeducation as well as self-monitoring of distressing body-image experiences. Another component teaches cognitive strategies for identifying and modifying dysfunctional assumptions and thoughts about one’s body. In this study, we compared outcomes from the first component with those of the
components combined. We hypothesized that participants in both conditions would experience significant improvements in body image, self-esteem, social anxiety, depression, and eating pathology. We also expected that individuals who completed additional cognitive assignments would evince greater changes. Finally, we examined the effects of study attrition, evaluated potential influences of individual differences, and determined procedural compliance as well as the clinical significance of outcomes.

Method

Participants

Participants were 86 women and 3 men from community and college populations in the mid-Atlantic region of the United States. They responded to advertisements in local print media or flyers posted on a university campus and met four eligibility criteria. They were at least 18 years old, experienced body dissatisfaction that caused significant distress or impairment of self-esteem, had interest in improving body image via self-help, and returned completed pretest materials by postal mail. Participants ranged in age from 18 to 63 (M = 38) years; their educational attainment ranged from no college attendance to postgraduate work. The sample was 85% European American, 10% African American, and 5% of other origins. Fifty-two percent were married. Their body mass index (BMI = kg/m²) averaged 28.0 (SD = 6.3), and one-third of the sample had a BMI exceeding 30, reflecting obesity. Other descriptive analyses indicated that 22% reported concurrent counseling or psychotherapy; 27% stated they were on prescription psychotropic medication; 65% reported having had an “eating disorder” (anorexia nervosa, bulimia nervosa, or binge eating) at some time in the past; and 2 participants believed they currently had a binge-eating disorder.

Procedures and Measures

The study was approved by a university Institutional Review Board. To approximate a sample of “usual care” for self-help, selection criteria and client contact were minimal. Participants agreed to independently carry out a structured, time-limited program. They specifically agreed to complete assigned readings from Cash’s (1997) Body Image Workbook; to carry out as many assigned written exercises as possible and mail them to the investigators according to a prearranged schedule; and to complete and mail back posttest measures. Participants’ addresses were coded and names discarded to ensure anonymity.

Individuals in both conditions received three mailed packets. Packet 1 contained an informed consent form, a demographic questionnaire, and standardized pretest measures presented in randomized order. Packet 2 consisted of a weekly assignment schedule and a compilation of appropriate sections from the Workbook, including all assignment and self-monitoring forms. After 6 weeks, participants were to return all completed materials from Packet 2 to the investigator. Packet 3 (posttest), which was to be answered and returned
at Week 8, contained the same assessments as Packet 1 plus program evaluation measures. Return postage was prepaid. If Packets 2 or 3 were not received on schedule, one reminder was mailed. Otherwise, there was no direct contact with any participant after enrollment in the study.

Treatment conditions. Participants were assigned randomly to one of two conditions. As Table 1 summarizes, those in the psychoeducational plus self-monitoring (PE-SM) condition \((n = 47)\) received the Workbook's introduction and Steps 1 and 2. The introduction defines body image, describes the importance of body-image self-change as an alternative to unhealthy dieting or cosmetic surgery, explains the scientific basis for the program, and identifies eating disorders, clinical depression, and body dysmorphic disorder as problems that require professional help. Step 1 prescribes self-assessments to ascertain one’s body-image strengths, difficulties, and vulnerabilities (using norm-based profiles), followed by setting specific goals for change. Step 2 gives information on the prevalence of body-image dissatisfaction and its

<table>
<thead>
<tr>
<th>Week</th>
<th>Psychoeducation Plus Self-Monitoring (PE-SM Condition)</th>
<th>Cognitive Techniques (PE-SM-CT Condition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Pretest Assessments</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Workbook Introduction — presents nature of body image and program rationale— Step 1: Guided self-assessments, norm-based feedback, and goal setting</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Step 2: Discovery of body-image norms and personal body-image impact; presentation of detailed model of historical and concurrent causes; self-assessment of personal body-image history; self-monitoring of Activators-Beliefs-Consequences (A-B-C) of body-image experiences.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Continued A-B-C self-monitoring</td>
<td>Continued A-B-C self-monitoring; Step 4: Identify, monitor, and dispute dysfunctional appearance assumptions</td>
</tr>
<tr>
<td>4</td>
<td>Continued A-B-C self-monitoring</td>
<td>Step 5: Identify, monitor, and correct cognitive distortions; self-monitoring expanded to A-B-C-Disputing-Effects</td>
</tr>
<tr>
<td>5</td>
<td>Continued A-B-C self-monitoring</td>
<td>Continued A-B-C-D-E self-monitoring</td>
</tr>
<tr>
<td>6</td>
<td>Continued A-B-C self-monitoring</td>
<td>Continued A-B-C-D-E self-monitoring</td>
</tr>
<tr>
<td>7</td>
<td>Program materials (including homework) mailed back to researchers</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Posttest Assessments</td>
<td></td>
</tr>
</tbody>
</table>

Note. Steps refer to chapters in the Body Image Workbook (Cash, 1997).
potential impact on psychosocial functioning. It then articulates a causal model of cultural and historical factors in body-image development and highlights concurrent cognitive and behavioral processes that engender and sustain body-image dysphoria. Finally, in this second step, participants are taught how to self-monitor and record the A-B-Cs (activators, beliefs, and consequences) of dysphoric body-image emotions. Participants in this condition were asked to use the self-monitoring form, the Body Image Diary, first to record their most typically distressing body-image experiences and then their daily experiences over the remaining 4 weeks of the program.

As Table 1 shows, in the second condition (PE-SM-CT) two cognitive techniques (Workbook Steps 4 and 5) were added to the psychoeducational and self-monitoring components (n - 42). In Step 4, participants are taught to identify, monitor, and dispute 10 dysfunctional “appearance assumptions” (schemas) that may permeate their body-image thoughts (e.g., “If people knew how I really look, they would like me less”). In Step 5, they are taught to identify, monitor, and correct eight cognitive distortions (e.g., dichotomous thinking, emotional reasoning, upward social comparison) in their perceptions and interpretations of appearance-related events. These additional two components were prescribed during the last 4 weeks of the 6-week program. Although participants continued to use the daily self-monitoring diary, its format is modified in Step 5 to permit recording their corrective cognitions and their consequences. (Step 3, which entails relaxation training and body-image desensitization, was not used in the study.)

At pre- and posttest, the following validated assessments were administered.

**Body-image measures.** The Multidimensional Body-Self Relations Questionnaire (MBSRQ) is a 69-item attitudinal assessment of body image, using a 5-point disagree-agree response format (Brown, Cash, & Mikulka, 1990; Cash, 2000). This study used two MBSRQ subscales: The 7-item Appearance Evaluation subscale assesses negative-to-positive appraisals of one’s appearance in general. The 9-item Body Areas Satisfaction Scale (BASS) measures one’s degree of dissatisfaction or satisfaction with specific body areas and attributes (e.g., face, weight, lower torso, etc.). These subscales use a 5-point response format, and lower scores reflect more negative body-image evaluations. Internal consistencies (Cronbach’s alphas) of these measures in this study were .84 and .69, respectively.

The Situational Inventory of Body-Image Dysphoria (SIBID; Cash, 1994, 2000, in press) assesses the frequency of negative body-image emotions in 48 social and nonsocial contexts, on a scale from 0 (never) to 4 (always or almost always). The SIBID’s internal consistency was .96.

The Appearance Schemas Inventory (ASI; Cash, 2000; Cash & Labarge, 1996) is a 14-item measure of dysfunctional assumptions about the meaning and importance of one’s appearance in one’s life (e.g., “What I look like is an important part of who I am”; “I should do whatever I can to always look my best”). Items are rated on a 5-point disagree-agree scale. The ASI’s internal consistency in the current sample was .86.
The Appearance Behaviors Questionnaire (ABQ; Cash, Muth, Williams, & Rieves, 1996) is a 47-item assessment of self-regulatory behaviors for managing body-image dysphoria. Items reflect both situational avoidance and compulsive behavioral rituals vis-à-vis one's appearance, rated on a 5-point scale from 0 (never) to 4 (always or almost always). Its internal consistency with this sample was .95.

Measures of psychosocial functioning. The Texas Social Behavior Inventory (TSBI) is a 16-item measure of social self-esteem (Hemreich & Stapp, 1974) and contains self-statements pertaining to sociability, confidence, and assertiveness rated on a 5-point scale from 0 (not at all characteristic of me) to 4 (very characteristic of me). High scores indicate positive social self-esteem. Its internal consistency was .84.

The 12-item Fear of Negative Evaluation—Short Form (Brief FNE) assesses the degree of anxiety in anticipation of being evaluated negatively by others (Leary, 1983). All items are rated on a scale from 1 (not at all characteristic of me) to 5 (extremely characteristic of me), with higher scores reflective of greater social-evaluative anxiety. Its internal consistency was .91.

The Center for Epidemiological Studies–Depressed Mood Scale (CES-D) is a well-established, 20-item self-report measure of depressive symptomatology (Radloff, 1977). Items represent manifestations of depression during the past week, rated on a scale from 1 (rarely or none of the time or less than 1 day) to 4 (most or all of the time or 5 to 7 days). The CES-D’s internal consistency was .92.

The Eating Attitudes Test–26 (EAT-26) is a well-validated measure of the eating pathology of anorexia nervosa (Garner & Garfinkel, 1979; Koslowsky et al., 1992). Participants rate eating-related attitudes and behaviors on a 0 to 5 scale (from always to never). The EAT-26 was scored continuously (rather than by discontinuous, clinical scoring), and its internal consistency was .86.

Assessments of compliance and program satisfaction. A program evaluation questionnaire assessed participants’ reported compliance with reading program materials, completion of assigned homework activities, and their perceptions of the helpfulness of the program as a whole. An additional index of compliance was the number of completed homework assignments returned. A 7-item version of the Client Satisfaction Questionnaire (CSQ-7; Larson, Attkisson, Hargreaves, & Nguyen, 1979) measured program satisfaction using a 4-point Likert-type response format.

Results

Body Images and Psychosocial Functioning at Baseline

By design, no psychometric criteria were used to select participants. Therefore, to ascertain their initial levels of functioning, we compared them to appropriate norms on various assessments. Participants’ evaluative body image was quite poor (i.e., the 9th percentile on Appearance Evaluation and the 15th percentile on the BASS). Their body-image dysphoria on the SIBID
was at the 93rd percentile, and their dysfunctional investment in appearance on the ASI was at the 84th percentile. On the ABQ, the enrollees’ 87th percentile indicated substantial behavioral dysfunction in response to their body-image dysphoria. With respect to psychosocial functioning, participants scored at the 95th percentile on social anxiety and at the 14th percentile on social self-esteem. Based on published cutoff criteria, 23% and 49% of participants had clinical levels of depressive (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995) and eating symptomatology (Garner, Olmstead, Bohr, & Garfinkel, 1982), respectively. Collectively, these data confirm that participants in the study initially experienced significant body-image dysfunction and psychosocial difficulties.

Pretest Comparisons of Program Conditions and Attrition Groups

At pretest, enrolled participants in both conditions were statistically equivalent on age, level of education, body mass, race, marital status, and all outcome measures. A relatively high rate of study attrition was observed, with 52.8% of participants failing to return completed posttests. Attrition was comparable between conditions. Comparisons of PE-SM completers (48.9%) and PE-SM-CT completers (45.2%) revealed only one reliable pretest difference, with the former reporting more depressive symptoms on the CES-D, $F(1, 40) = 4.96, p < .05$.

General-linear-model analyses of variance (GLM ANOVAs) also identified four pretest differences between the completers and noncompleters of either condition: Noncompleters initially had more dysfunctional body-image behaviors on the ABQ, $F(1, 85) = 6.96, p < .01$, higher BMIs, $F(1, 85) = 4.36, p < .05$, more depression, $F(1, 85) = 5.43, p < .05$, and better social self-esteem on the TSBI, $F(1, 85) = 4.62, p < .01$. No other factor was found to account for attrition.

In view of the study’s attrition, our evaluation of the self-treatment outcomes entailed two sets of analyses: (a) results with persons who actually completed the program, and (b) intent-to-treat analyses, which included all enrollees and assigned pretest values for posttest scores for dropouts (i.e., assuming no change). In each set, to adjust for Type I error, alpha was set at the .05 level after Bonferroni correction. Because no significant changes in body mass were found for either condition, any changes on the outcome variables would not be explained by weight changes.

Changes in Body Image

Results of 2 (Condition) × 2 (Time) GLM ANOVAs confirmed reliable pre-to-post changes across conditions ($ps < .05$) on all but one body-image measure, absent any significant interaction. The effect for reported behavioral

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1 In addition to these measures, attrition was examined and determined to be inconsequential with respect to whether or not the participant was concurrently receiving counseling/psychotherapy or prescription psychotropic medication, or reported a history of any eating disorder.
change on the ABQ was weaker ($p < .10$). These results, including effect sizes ($\eta^2$), are given in Table 2. The more conservative intent-to-treat analyses confirmed the same significant improvements in body image across conditions, despite reductions of effect size by about 40%. Analyses of covariance (ANCOVAs), which compared pretest-adjusted outcomes, further indicated no ultimate body-image differences between conditions.

**Changes in Psychosocial Functioning**

As shown in Table 3, the $2 \times 2$ GLM ANOVAs confirmed significant pre- to posttest improvements across conditions in social anxiety, social self-esteem, and depression ($ps < .05$). The reduction in eating symptomatology was weaker ($p < .10$). Intent-to-treat analyses produced the same results, albeit with smaller effect sizes. The Condition $\times$ Pre-post interaction was significant for depression, $F(1, 38) = 9.15, p < .05$, indicating a change only for the PE-SM condition, as well as the aforementioned difference at pretest. ANCOVAs revealed no posttest differences between conditions on the measures of psychosocial functioning, except for a marginal difference on depression that favored the PE-SM group ($p < .10$).
TABLE 3
PRE-TO POSTTEST CHANGES IN PSYCHOSOCIAL FUNCTIONING FOR THE TWO CONDITIONS

<table>
<thead>
<tr>
<th>Measure/Condition</th>
<th>Pretest M (SD)</th>
<th>Posttest M (SD)</th>
<th>F (Pre-Post)</th>
<th>Effect Size (η²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas Social Behavior Inventory (TSBI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE-SM condition</td>
<td>44.8 (8.5)</td>
<td>50.2 (10.4)</td>
<td>12.90**</td>
<td>.25</td>
</tr>
<tr>
<td>PE-SM-CT condition</td>
<td>49.3 (10.7)</td>
<td>53.0 (15.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of Negative Evaluation Scale (Brief FNE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE-SM condition</td>
<td>41.6 (10.1)</td>
<td>37.1 (11.4)</td>
<td>9.36*</td>
<td>.19</td>
</tr>
<tr>
<td>PE-SM-CT condition</td>
<td>42.4 (9.7)</td>
<td>39.4 (12.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center for Epidemiological Studies Depression Scale (CES-D)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE-SM condition</td>
<td>23.1 (14.2)</td>
<td>11.6 (7.9)</td>
<td>11.57**</td>
<td>.23</td>
</tr>
<tr>
<td>PE-SM-CT condition</td>
<td>14.6 (11.3)</td>
<td>13.9 (12.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating Attitudes Test (EAT-26)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE-SM condition</td>
<td>55.3 (13.1)</td>
<td>52.0 (14.3)</td>
<td>4.19</td>
<td>.10</td>
</tr>
<tr>
<td>PE-SM-CT condition</td>
<td>53.3 (16.2)</td>
<td>48.7 (20.8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The EAT-26 was scored continuously. Bonferroni-adjusted p levels: *p < .05; **p < .01. The dfs ranged from (1,38) to (1,40) due to occasional missing data.

Evaluation of Individual Differences Potentially Moderating Changes

In view of the fact that there were no exclusionary factors in the selection of participants, we examined a number of uncontrolled individual-difference variables that might affect body-image and psychosocial outcomes. Using 2 (Individual-Difference Factor) × Pre-post GLM ANOVAs, examined factors were the presence or absence of obesity (BMI ≥30.0), self-reported history of eating disorder (bulimia nervosa, anorexia nervosa, or binge eating), concurrent psychotherapy/counseling, or concurrent use of psychotropic prescription medication. Results indicated that none of these factors produced significant differential changes on any outcome measure.

Clinical Significance of Outcomes

Using Jacobson and Truax’s (1991) statistical procedure to derive a clinical index of “functional recovery,” we compared our sample at posttest to a well-functioning norm group. This index is especially appropriate in view of the evidence above that our sample was initially quite deviant from body-image norms. A functionally recovered individual’s score on a measure of body image would fall closer to a well-functioning group norm than to the mean for a dysfunctional group. Well-functioning was conservatively defined as persons not dissatisfied with any body area on the MBSRQ BASS, using cri-
terion values from Grant and Cash's (1995) study. Because no differential change was observed between conditions in the current study, we collapsed across them. The percentage of "functionally recovered" individuals was 43% for MBSRQ Appearance Evaluation, 33% for the ASI, and 24% for the SIBID.

**Procedural Compliance and Perceived Program Utility**

Participants reported the percentage of assigned reading materials that they completed. The PE-SM group indicated reading 96% of their materials, whereas the PE-SM-CT group stated they read 78%, $F(1, 38) = 4.67, p < .05$. For each participant, an index of behavioral compliance was derived by dividing the number of completed written exercises (other than self-monitoring forms) by the number of assigned written exercises. No significant differences in compliance occurred between conditions for program Step 1, $F(1, 41) = 2.59, p = .12$, or Step 2, $F(1, 41) = .39, p = .54$. The two groups, respectively, completed 97% and 89% of Step 1 materials and 75% and 70% of Step 2 materials. For Steps 4 and 5, available solely in the PE-SM-CT condition, a pattern was evident of decreasing compliance over time—with completion of two-thirds of the written assignments in Step 4 versus one-half of them in Step 5.

With respect to the number of completed self-monitoring forms returned, a 2 (Condition) × 4 (Weeks) GLM ANOVA revealed no differential compliance between conditions, $F(1, 40) = 2.38, p = .13$. However, participants' documented self-monitoring declined over time, from an average of 4.5 forms in the first week of assignment to an average of less than 1 form in the last week, $F(3, 120) = 16.62, p < .001$.

On the CSQ-7, participants' satisfaction with the two conditions did not differ. Averaged across the seven 4-point scale ratings, evaluations were 2.9 and 3.1 for completers of the PE-SM and PE-SM-CT conditions, respectively. Thirty-seven percent of completers rated their program as moderately to very helpful, 53% regarded it as slightly or somewhat helpful, and only 10% said it was not at all helpful.²

**Discussion**

CBT is an empirically supported treatment for body-image dysfunctions (see Cash & Strachan, 1999, in press). Body-image CBT is also efficacious

² On Item 6 of the CSQ-7, two participants (one in each condition) reported that the program "seemed to make things worse." One "deteriorating" participant actually had modest improvements on most of the outcome measures and no apparent worsening on any measure. The second person did show substantial worsening on body image and psychosocial functioning. She had the most negative pretest body image scores of all participants, was quite obese (BMI = 38), moderately depressed and socially anxious, with a self-reported history of bulimia nervosa and a clinically elevated EAT-26 score. Ironically, she wrote that the "most helpful aspect of the program" was that it made her aware of the extent of her self-hatred and unhappiness.
when self-administered with modest degrees of "therapist" or administrative contact (Cash & Lavallee, 1997; Grant & Cash, 1995; Lavallee & Cash, 1997). In the current study, we evaluated specific components of Cash's (1997) body-image CBT program in a more "usual care" context of autonomous self-help.³ Our self-selected participants initially experienced substantially elevated levels of body-image discontent and dysphoria and associated psychosocial difficulties. They were randomly assigned to complete either a psychoeducational facet of the program that included self-monitoring or a condition that also provided information and assignments for identifying and modifying dysfunctional body-image cognitions.

The psychoeducational aspect of the body-image CBT program studied here is multifaceted. It conveys detailed information on the nature and norms of body image and body-image development, including the historical and proximal cognitive-behavioral causes of body-image problems. The Workbook provides individualized, guided feedback about body-image strengths and vulnerabilities (using norm-based profiles). It teaches participants how to set goals for body-image change, to identify the impact of body image on their functioning and quality of life, and to determine developmental trajectories of their body image from childhood to the present time. Thus, "psychoeducation" here is highly personalized and is not merely a presentation of general information to a passive reader. Systematic self-monitoring entails the individual discovery of the activating events, cognitive processes, and emotional and behavioral consequences vis-à-vis one's day-to-day body-image experiences.

The cognitive-change elements added in the PE-SM-CT condition teach participants to identify, monitor, and dispute dysfunctional body-image schemas that underlie their body-image thoughts. They then identify, monitor, and correct specific cognitive distortions inherent in their perceptions and interpretations of appearance-related events.

Relative to aforementioned studies, this 6-week self-help protocol produced greater levels of attrition. Approximately one-half of enrollees who completed pretest assessments were unavailable at posttest. The program attrition rate was 0% in Grant and Cash's (1995) study, which involved regular face-to-face therapist contact. Lavallee and Cash's (1997) body-image self-help study, which had a 3% attrition rate, entailed face-to-face meetings with a program administrator at the orientation/pretest session and the posttest session and required a $10 program deposit refundable upon posttest completion. Cash and Lavallee's (1997) only-telephone-contact study had a 25% completion rate. The anonymous participants in the present study had no contact with program personnel other than a brief phone conversation at

³ Our study only approximates "usual care." Unlike persons who purchase the self-help program for autonomous use, our participants were asked to complete and return pre- and posttests, to carry out assignments within a specific time frame, and to mail back all completed written assignments after 6 weeks.
enrollment and scheduled mailings of coded materials. Progress was not externally monitored until the end of the program, nor was a refundable deposit used.

Compared to completers, our dropouts had higher initial BMIs, more entrenched body-image behaviors, and more depressive symptomatology. Such characteristics may undermine motivation for change in the absence of the structure, accountability, feedback, and support that even modest therapist contact can provide. Dropouts' higher social self-esteem, reflecting greater social confidence and interpersonal skill, may have buffered their motivation for change.

Our findings confirmed significant body-image improvements of participants across conditions. After the program, completers reported greater body satisfaction, less dysfunctional investment in their appearance, and reduced body-image dysphoria over a range of situational contexts. These changes remained significant, albeit understandably of lesser magnitude, in the more conservative intent-to-treat analyses that assumed no change for persons who had dropped out. Participants also evaluated both conditions favorably; only 10% rated them as unhelpful. Change in dysfunctional body-image behaviors (i.e., avoidant and compulsive behaviors) was statistically minimal. These behaviors are the therapeutic focus of Steps 6 and 7 of the program that were not administered in this study.

Similarly, consistent with other body-image CBT trials, analyses of completers and intent-to-treat analyses produced significant improvements in social self-esteem and social anxiety. A change on depression was more pronounced for the PE-SM group, which may reflect a regression to the mean of these participants' initially elevated scores. Unlike previous findings (Cash & Lavallee, 1997; Lavallee & Cash, 1997; Grant & Cash, 1995; Rosen et al., 1990; Rosen, Orosan, et al., 1995), we observed little reduction in eating pathology. Such changes may require a more comprehensive body-image CBT program or more compliance-enhancing procedures than were used here.

Our analyses did not identify any individual differences that moderated outcomes. Comparable outcomes occurred for obese and nonobese persons, for those with and without a self-reported history of eating disturbance, as well as for participants concurrently receiving or not receiving either counseling/psychotherapy or prescription psychotropic medications. The fact that one-third of our treatment-seeking participants were obese underscores the substantial body-image challenges of obesity (Cash, 2002; Cash & Roy, 1999; Schwartz & Brownell, in press). Body-image CBT is a much-needed and potentially effective treatment for these individuals, whether used adjunctively or as an alternative to weight-loss interventions (Cash & Roy; Foster & Matz, in press; Ramirez & Rosen, 2001).

Contrary to expectation, the comparative outcomes of the two conditions did not differ on any measure. Thus, our addition of specific cognitive-change interventions failed to augment the effectiveness of body-image psychoeducation plus self-monitoring. One plausible explanation is that compliance
with the cognitive interventions was poor. Over time, participants in both conditions completed fewer assignments, but the final PE-SM-CT assignments required the identification, monitoring, and recorded disputation of dysfunctional beliefs and distorted thought processes. Thus, we cannot conclude that these cognitive interventions are ineffective, only that they may be insufficiently implemented in a purer self-help modality. In previous studies of body-image CBT (Grant & Cash, 1995; Lavallee & Cash, 1997), participants rated these cognitive techniques as particularly helpful.

Clinical significance analyses revealed a moderate degree of "functional recovery," ranging from 24% to 43% depending on the body-image measure used. Still, these rates fall below those from studies of self-directed CBT with the entire 8-step program and/or some degree of regular therapist contact, whether face-to-face or by telephone. Grant and Cash's (1995) recovery rate on these measures ranged from 52% to 57%, and Lavallee and Cash's (1997) rate was 58% to 74%.

One limitation of the present component-control study is the lack of an untreated control condition to rule out the possibility of comparable changes among volunteers who merely completed the pre- and posttests. The lack of differential efficacy between the study's two interventions would seem to suggest the value of such a control condition. It should be noted, however, that no published body-image treatment study with a wait-list condition observed significant changes due to repeated assessments in the absence of treatment (Butters & Cash, 1987; Dworkin & Kerr, 1987; Fisher & Thompson, 1994; Rosen, Orosan, et al., 1995; Rosen, Reiter, et al., 1995). Nevertheless, to enhance the internal validity of future comparative studies of body-image interventions, the inclusion of untreated controls should be considered.

One interesting aspect of our findings concerns the role of self-monitoring, which was a component of both programs. While self-monitoring is typically regarded as an assessment procedure (Cone, 1999), in certain contexts it can also be reactive (i.e., produce change) and potentially therapeutic, especially when used with other interventions (Korotitsch & Nelson-Gray, 1999). Among its other ingredients, the psychoeducational aspect of the program provides persons with a systematic causal understanding of their day-to-day body-image experiences. With this knowledge and with goal-setting for desired body-image changes, self-monitoring may not only serve to validate a new cognitive framework for anticipating and understanding their body-image experiences, but it may also instigate more adaptive coping or self-regulatory processes (Bandura, 1986; Wilson & Vitousek, 1999), even in the absence of learning new strategies for doing so. To consider these possibilities, future research should investigate the roles of body-image psychoeducation and self-monitoring separately and in combination.

In sum, our results point to three key conclusions about the self-help usage of Cash's (1997) program: (a) After 6 weeks of psychoeducation and self-monitoring (Steps 1 and 2 of the program), empirically and clinically significant changes in body-image evaluation, investment, and affect occurred; (b)
accompanying improvements in social self-esteem, social anxiety, and depression were evident, whereas changes in eating pathology were less substantial; (c) procedural compliance with additional cognitive components was minimal and diminished over time and thus could contribute little to program effectiveness. A comparison of these results with those of body-image CBT studies having at least modest “therapist” or administrative contact points to better compliance and clinical outcomes for the latter. Therefore, clinicians using a self-directed program as an adjunct to therapy would be well advised to monitor and reinforce clients’ adherence and progress (Fairburn & Carter, 1997; Pantalon, Lubetkin, & Fishman, 1995).

Researchers should continue to evaluate body-image CBT and its components in the treatment and prevention of body-image disturbances and comorbid conditions such as eating disorders (see Cash & Pruzinsky, in press; Levine & Smolak, 2001, in press; Piran, Levine, & Steiner-Adair, 1999). Although follow-up assessments were not included in the present short-term study, determination of the maintenance of treatment gains from body-image CBT is needed. Whether for prevention or treatment, body-image interventions delivered as an academic course or as a computerized or Internet-based program are promising areas of inquiry (Winzelberg, Abascal, & Taylor, in press).

As our data identify, some persons who wish to change their negative body-image experiences have difficulty carrying out a self-directed program to do so. They may be so entrenched in their cognitive, behavioral, and emotional patterns that they lack sufficient self-efficacy for change. Because compliance with self-help programs can be problematic and predictive of outcomes, researchers and clinicians should attend to individual differences in potentially mediating attitudes toward self-help per se (Wilson & Cash, 2000). Clearly, researchers must investigate strategies to motivate and enhance compliance with potentially effective self-directed programs for body-image change, as has been done successfully with various other self-help interventions (e.g., Hodgins, Currie, & el-Guebaly, 2001).

References


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