Stopping Overshopping: A Preliminary Randomized Controlled Trial of Group Therapy for Compulsive Buying Disorder

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Stopping Overshopping: A Preliminary Randomized Controlled Trial of Group Therapy for Compulsive Buying Disorder

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The present study tested the efficacy of a group treatment model for compulsive buying disorder, the Stopping Overshopping model, which includes aspects of cognitive-behavioral and dialectical behavior therapy, psychodynamic psychotherapy, psychoeducation, motivational interviewing, acceptance and commitment therapy, and mindfulness. A randomized controlled trial with 11 participants compared the efficacy of this model with a waiting-list control group, which received the treatment after a 12-week waiting period. Results showed significant improvement on (a) all compulsive buying measures, (b) amount of money and time spent, and (c) number of compulsive shopping episodes, all of which were well maintained at 6-month follow-up.

KEYWORDS compulsive buying disorder, group therapy, shopping addiction

Compulsive buying, a serious and widespread disorder, has only recently begun to attract the scientific attention given to its psychological siblings,
including eating disorders, substance abuse, and gambling disorder. The most commonly accepted diagnostic criteria (McElroy, Keck, Pope, Smith, & Strakowski, 1994) define the disorder as a maladaptive preoccupation with buying or shopping impulses or behavior that either is irresistible and intrusive or results in frequent buying of more than is needed or can be afforded. Compulsive buying has three primary features: irresistible impulses to shop, loss of control over these impulses, and the persistence of such behavior despite adverse consequences. The impulses are distressing and time-consuming and result in problems with social, occupational, or financial functioning. Both research and clinical evidence suggest that compulsive buying disorder is a problem with significant emotional, social, occupational, and financial consequences, including debilitating debt, familial friction, problems in the workplace, and psychological difficulties such as shame, guilt, depression, hopelessness, and anger (Benson & Gengler, 2004).

First identified by Kraepelin (1915) and Bleuler (1930) in the early 20th century, compulsive buying was classified as “oniomania,” an impulsive disorder akin to pyromania and kleptomania. The disorder remained relatively unexplored until an upsurge of clinical interest in the past two decades (Black, 2007). This increased interest has resulted in significant confusion around the psychiatric classification of compulsive buying: Some locate it among the addictive disorders (Hartston, 2012; Krych, 1989), some among the affective disorders such as depression (Lejoyeux, Hourtané, & Adès, 1995), others among the mood disorders such as bipolar disorder (Kesebir, Işitmez, & Gündoğar, 2012; Lejoyeux, Andes, Tassian, & Solomon, 1996), and still others along the obsessive-compulsive spectrum (Hollander, 1993). Introduced into the Diagnostic and Statistical Manual of Mental Disorders-Third Edition, Revised (American Psychiatric Association, 1987), compulsive buying has since been categorized as an impulse control disorder (ICD) not otherwise specified. Despite some diagnostic overlap with obsessive-compulsive disorder (OCD), research exploring the presence of OCD symptoms in samples of compulsive buyers suggests that compulsive buying more closely resembles an ICD or behavioral addiction due to the notable presence of impulsivity and loss of control as opposed to obsessions or ritualistic behaviors (Black, Shaw, & Blum, 2010; Christenson et al., 1994; Filomensky et al., 2012). The spectrum of compulsive buyers is wide, and it is likely that compulsive buying is a symptom that can occur in each of these conditions.

Despite these discrepant approaches to the classification of the disorder, prevalence studies have consistently indicated alarmingly high rates of compulsive buying. Koran, Faber, Aboujaoude, Large, and Serpe (2006) suggested that 5.8% of the U.S. population, or 17 million Americans, exhibit symptoms of compulsive buying as assessed by a large-scale telephone survey. A more recent study revealed scores in the compulsive buying range in 8.9% of university staff, 15.5% of university undergraduate students, and 16% of customers at an online women’s clothing retailer (Ridgway,
Although reported prevalence rates vary, these studies indicate that compulsive buying presents a serious problem for a substantial and diverse subset of the U.S. population. On a societal level, the negative impact of our deeply ingrained buying behavior has become increasingly clear since the mortgage meltdown of 2007 (Benson, Dittmar, & Wolfsohn, 2011). In 2012, the average amount of credit card debt in American households was $15,799, while the average overall household debt was $54,000 (Statistic Brain, 2012). The widespread prevalence of debt led to a total of 1.4 million bankruptcy filings in 2011, while 7.6 million homes went into foreclosure between the years of 2009 and 2011 (Dion, 2012). Although many factors go into the current financial collapse, compulsive buying plays a significant role: Unsurprisingly, a recent U.S. prevalence study showed that compulsive buyers in all income groups had higher credit card balances than the rest of the population (Koran et al., 2006). As evidenced by our current national financial woes, a culture of compulsive buying has had a significant impact on both an individual level and a societal level.

As interest in compulsive buying has blossomed during the past few decades, a number of treatment approaches, including psychiatric medication, individual therapy, couples therapy, and group therapy, have been employed with compulsive buyers with varying success. Outside of the traditional therapeutic paradigm, other approaches have included financial recovery counseling (McCall, 2000), Debtors Anonymous, a 12-step program similar to that of Alcoholics Anonymous, and Simplicity Circles, which provide a space to discuss the advantages of a simpler way of life (Andrews, 2000). Outcome research for these treatments is still in its infancy, and data about the efficacy of these modalities are scarce.

A review of the scant research data suggests that group therapy may provide the most consistently successful treatment (Armstrong, Gatersleben, & Jackson, 2011; Mitchell, Burgard, Faber, Crosby, & de Zwaan, 2006; Mueller et al., 2008). This can be attributed to several possible factors, including: a homogenous group setting that diminishes feelings of aloneness and increases feelings of being understood; feedback from other compulsive buyers to help break through denial; and an opportunity to witness others in various stages of recovery. Although at least six different models of group therapy have appeared since the late 1980s (Armstrong et al., 2011; Brazer, 2000; Damon, 1988; Mitchell & Burgard, 2000; Parecki, 2000; Villarino, Otero-Lopez, & Casto, 2001), outcome data have been published only on Mitchell and Burgard’s model (Mitchell et al., 2006; Mueller et al., 2008, 2011). Data on Armstrong’s mindfulness model are forthcoming.

Mitchell and Burgard’s model (2000) is a traditional cognitive-behavioral therapy (CBT) program for compulsive buying that includes homework assignments and, in some of the groups, requires members to bring family and friends to one meeting. In a first attempt to quantify the efficacy of this model, Mitchell and colleagues (2006) ran a 12-session CBT group during 10 weeks and then compared the participants’ scores on several compulsive...
buying measures to the scores of members of a waiting-list control group. The experimental-group participants demonstrated significant improvement on the compulsive buying scales; by the end of the group, a quarter of participants reported total remission of compulsive buying behavior in the previous 4 weeks, while a 6-month follow-up found this number increased to half. A similar study (Mueller et al., 2008) using the same model of CBT further substantiated its effectiveness and reported significant improvements on compulsive buying measurements with results maintained at a 6-month follow-up. A more recent study (Mueller, Arikian, de Zwaan, & Mitchell, 2013) compared CBT for compulsive buying with guided self-help (GSH) by telephone. Results suggested that face-to-face group CBT is superior to GSH, although participants who received GSH tended to make more progress in overcoming their compulsive buying problems than did participants in the waiting-list control group. These are the first studies to rigorously examine group treatment for compulsive buying, and the results suggest it to be both effective and lasting.

A newer addition to the field of group therapy for compulsive buyers has been the development of the Stopping Overshopping model (Benson & Eisenach, 2013). First developed in 2005, Stopping Overshopping is a comprehensive 12-week group program, led by a trained professional, unique for its eclectic integration of treatment approaches that have been shown to be successful with compulsive buyers: CBT (Jhanjee et al., 2010; Kellett & Bolton, 2009; Marcinko & Karlovic, 2005; Mitchell et al., 2006; Mueller et al., 2008, 2011), psychodynamic psychotherapy (Krueger, 1988; Richards, 2000; Winestine, 1985), mindfulness (Armstrong et al., 2011), and motivational interviewing (Donahue, Odlaug, & Grant, 2011). Aspects of several other approaches that have been shown to be effective with other substance or process addictions including psychoeducation (La Salvia, 1993), dialectical behavior therapy (Linehan et al., 1999), and acceptance and commitment therapy (Luoma, Kohlenberg, Hayes, & Fletcher, 2012) are also components of the Stopping Overshopping model. Psychodynamic elements aid participants in understanding the historical antecedents of their behavior, current familial influences, and underlying authentic needs. The psychoeducational elements encourage participants to develop media literacy; look at the role of culture, the high cost of credit card debt, and the centrality of savings; and eventually record and evaluate expenditures daily. Aspects of motivational interviewing include a thorough exploration of ambivalence about change. Components of dialectical behavior therapy, such as distress tolerance and interpersonal effectiveness, are targeted in a variety of exercises. The methods related to acceptance and commitment therapy encourage participants to be mindful of their thoughts, feelings, and actions surrounding overspending and to treat themselves with compassion in the current moment. This focus on distress tolerance and mindfulness around feelings can serve to address the alexithymic tendencies of compulsive buyers, who have been
demonstrated to have significant difficulty identifying their feelings (Barth, 2000; Rose & Segrist, 2012).

CBT also provides a key modality in the Stopping Overshopping model, given the demonstrated efficacy of CBT as a treatment method for compulsive buying (Mitchell et al., 2006; Mueller et al., 2008). Group members are given the tools to identify and restructure automatic thoughts related to their compulsive buying impulses and behavior. The core structure of the Stopping Overshopping model resembles those of Mitchell et al. (2006) and Mueller et al. (2008) in its weekly meetings, small groups, and required reading and homework, but it differentiates itself through its unique integration of various evidence-based treatment methods. It is worth noting that not all therapists align themselves with a CBT approach, and there is growing evidence that other treatments have been used successfully with compulsive buyers including individual psychodynamic psychotherapy (Krueger, 1988; Richards, 2000; Winestine, 1985), motivational interviewing (Donahue, Odlaug, & Grant, 2011), and mindfulness-based group treatment (Armstrong et al., 2011). Given the theoretical diversity of clinicians working with compulsive buyers, the Stopping Overshopping model draws from a wide array of methodologies and could therefore provide a useful framework for clinicians who subscribe to orientations beyond CBT.

This model approaches compulsive buying from affective, cognitive, and behavioral standpoints and uses a wide array of techniques to help participants eliminate self-defeating behaviors and replace them with interests and competencies consistent with their core values. The program is underpinned by the development of two central concepts: radical acceptance (Brach, 2003), a method of evaluating one’s cognitions and behaviors in a clear and compassionate manner, and mindfulness (Kabat-Zinn, 1994), a philosophy of present-moment, nonjudgmental awareness. Beyond group process, members read the text for the group, To Buy or Not to Buy: Why We Overshop and How to Stop (Benson, 2008), complete narrative written exercises, and maintain shopping journals. In these journals, participants write guided narratives, respond to questions, plan and review purchases, record and evaluate all expenditures, and create individualized lists of triggers, consequences, acts of self-kindness, acts of self-care, tailor-made alternatives to shopping, and danger zones, which are the particular shopping venues that are most triggering. These serve as resources when participants have an urge to shop.

The Stopping Overshopping group meets for 12 once-a-week sessions, and each session is divided into four parts: (a) a brief meditation that includes offering loving kindness to oneself and others, (b) a check-in with each group member regarding overshopping during the previous week and progress on individual goals, (c) a sharing of highlights from each group member’s weekly writing assignment, and (d) a brief introduction to the next week’s material. Commitment to a weekly goal is a fundamental aspect.
of the program, and each member posts his or her goal in the form of a motivational interview (Miller & Rollnick, 2002) to an online Yahoo! group open exclusively to group members. Typical weekly goals include: not going to a particular store or viewing a TV shopping channel, limiting Internet browsing time, unsubscribing from online retail sites, cleaning or organizing closets or dressers, or, for a chronic returner, resisting the impulse to return previously purchased items. Following each session, the group leader posts a debriefing note to the online group to reinforce the session, gives personal feedback to each member on his or her progress, and provides a transition to the upcoming session. Due to the structured and time-limited group sessions, group members also use the online group to share information, triumphs, and difficulties with each other and the group leader throughout the week. A comprehensive overview of the Stopping Overshopping model can be found in Benson and Eisenach (2013).

The present study is an initial attempt to quantify the efficacy of the Stopping Overshopping model through the implementation of a randomized controlled trial in which participants receiving the 12-week Stopping Overshopping group treatment were compared to participants placed on a waiting list. These two groups were compared on the primary and secondary measures. Once this analysis was completed and the waiting-list control group was provided identical group treatment after the completion of the 12-week waiting period, data from the two groups were pooled when examining the overall effect of the treatment to increase sample size.

Researchers hypothesized that there would be a statistically significant drop in the severity and frequency of participants’ compulsive buying symptoms and behaviors as determined by improved scores on multiple compulsive buying measures and by purchasing-recall data following their participation in the 12-week Stopping Overshopping program.

METHODS

Participant Recruitment and Selection

Participants were recruited through online advertisements, announcements on the listserv of a New York City mental health clinic, and private referrals. Prospective participants were informed in detail about the study and were then interviewed by telephone by the first author to ensure the presence of compulsive buying symptoms and for psychiatric and substance abuse history.

Potential participants had to be at least 18 years old and had to present with symptoms of compulsive buying disorder. Potential participants were asked nine questions related to the diagnostic criteria for compulsive buying (McElroy, Keck, et al., 1994). The first six questions pertained to the behavioral and emotional aspects of compulsive buying, all of which had to be
answered in the affirmative. Those who answered these six questions in the affirmative were then asked three questions related to the consequences of their compulsive buying behavior. Candidates had to answer only one of these three questions in the affirmative to be considered for participation in the study.

Exclusion criteria included evidence of bipolar disorder, severe mental illness, active suicidal ideation, and drug or alcohol dependence within the past 6 months or drug abuse within the last month. Participants could be taking antidepressants if they had been on a stable dose for at least 3 months and if doses were kept stable. Any kind of psychotherapy aimed at reducing compulsive buying behavior was an exclusion criterion; however, other current psychotherapy was allowed if patients had been in treatment for at least 6 months. Following the telephone screening, potential participants who met the inclusion criteria were administered the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition, Text Revision Axis I disorders, Research Version, Patient Edition (SCID-I; First, Spitzer, Gibbon, & Williams, 1996) and the Modified ICD-SCID Module (First, 2007) to assess comorbiditity with both Axis I disorders and ICDs.

Fourteen people completed the SCID; 3 decided not to participate, which left 11 eligible participants for the study. After receiving and signing a consent form, the 11 participants were randomly assigned to one of two groups: experimental (EXP; 6 members) or waiting-list control (WLC; 5 members). All 11 of these participants completed the study. All participants were female, and participant ages ranged from 33 to 59 years old with a mean age of 46.55 years (SD = 8.64). Fifty-five percent of participants were married, while 27% were single, 1 was divorced, and 1 was living in a marriage-like relationship. The majority reported their ethnicity as White (64%), while 1 reported their ethnicity as Hispanic/Latino and 3 reported as “Other.” The number of credit cards that each participant owned ranged from 3 to 12, with a mean of 5 (SD = 2.57). Two participants reported having no credit card debt, 4 reported debt between $1,000 and $3,000, 1 reported debt between $10,000 and $25,000, 2 reported debt between $25,000 and $50,000, and 2 reported debt exceeding $50,000. There were no significant differences in age, marital status, ethnicity, frequency of current psychotherapy, psychotropic medication use, number of credit cards, or amount of credit card debt between the EXP and WLC groups.

The groups met for 100-min sessions once a week for 12 weeks. The EXP group sessions began in the fall of 2010, and the WLC group sessions began in early winter 2011. Out of the 11 participants, 3 attended all 12 sessions, 3 attended 11 sessions, 3 attended 10 sessions, and 2 participants attended 9 out of 12 sessions. All sessions were held at the Institute for Contemporary Psychotherapy, a New York City nonprofit mental health clinic.
The Executive Committee of the Board of Directors of the Institute for Contemporary Psychotherapy reviewed and approved the research, as advised by a consultation with the American Psychological Association. Participation in this study was completely voluntary, and all participants provided written informed consent prior to the beginning of research.

Measures

Researchers used three established compulsive buying scales (CBS) and one related measure of compulsive buying severity to monitor the progress of participants throughout the treatment program. Given the controversy surrounding the classification of compulsive buying as ICD or OCD, the available scales draw from diverse conceptualizations of the disorder and therefore measure different aspects of compulsive buying (Cole & Sherrell, 1995; Kukar-Kinney, Ridgway, & Monroe, 2008). Due to the divergent approaches of these scales, researchers chose to include four measures of compulsive buying to obtain a more comprehensive assessment of buying behavior for each participant. The modified 11-item Valence Compulsive Buying Scale (Valence CBS; d’Astous, Maltais, & Roberge, 1990) assesses the tendency to spend, the urge to buy, and postpurchase guilt, and a combined score of 37.5 or greater suggests the presence of compulsive buying disorder. The Richmond Compulsive Buying Scale (Richmond CBS; Kukar-Kinney et al., 2008) is a 6-item questionnaire about impulsive buying habits that classifies compulsive buying as partly obsessive-compulsive and partly an ICD. A score of 25 or greater on the Richmond CBS indicates the presence of compulsive buying disorder. The Faber & O’Guinn Compulsive Buying Scale (Faber & O’Guinn CBS; Faber & O’Guinn, 1992) is a 7-item questionnaire regarding feelings and beliefs about spending habits. The items include personality variables, motivations for buying, and consequences of compulsive buying. After scores are processed, any total score less than −1.34 identifies the respondent as a compulsive buyer. As employed by Monahan, Black, and Gabel (1996), the Yale-Brown Obsessive Compulsive Scale-Shopping Version (YBOCS-SV) consists of 10 questions measuring preoccupations and behaviors associated with compulsive buying for which the mean score for compulsive buyers is 21 out of 40 with a range of 18 to 25. The YBOCS-SV is the only scale that measured severity of compulsive buying symptoms as opposed to the absence or presence of compulsive buying.

Researchers also used weekly purchasing-recall forms that asked the participants to note the amount of time and money spent on compulsive purchases during that time frame and also the number of compulsive buying episodes during that week. At 6-month follow up, participants completed a 2-week purchasing-recall form, noting the amount of time and money spent on compulsive purchases and number of compulsive buying episodes during the previous 2 weeks.
To assess for the previously demonstrated comorbidity of compulsive buying with eating disorders (Claes, Bijttebier, Mitchell, de Zwaan, & Mueller, 2011; Claes et al., 2012; Faber, Christenson, de Zwaan, & Mitchell, 1995; Fernández-Arana et al., 2008; Mueller, Mitchell et al., 2009), compulsive hoarding (Frost & Gross, 1993; Frost & Hartl, 1996; Frost et al., 1998; Frost, Steketee, & Williams, 2002; Mueller, Mitchell et al., 2009), and other psychiatric disorders such as OCD (du Toit, van Kradenburg, Niehaus, & Stein, 2001; Hantouche, Lancrenon, Bouhassira, Ravily, & Bourgeois, 1997; Hollander, 1993; McElroy, Phillips, & Keck, 1994) and depression (Lejoyeux et al., 1996), secondary outcome measures included the Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982), the Saving Inventory-Revised (SI-R; Frost, Steketee, & Grisham, 2004), and the Brief Symptom Inventory (BSI; Derogatis, 1975), all of which are self-report instruments. The EAT-26 is a 26-item standardized questionnaire that was administered to ascertain the presence of eating disorder symptoms and concerns (Garner et al., 1982). Those with scores of 20 points or higher are considered symptomatic. The SI-R serves to identify the presence of compulsive hoarding symptoms, and its subscales measure collecting, discarding, and clutter habits (Frost et al., 2004). A score or 13 points or higher on any subscale, or a total score of 40 points or higher, is considered a typical score for clinical hoarding. Finally, the BSI includes nine subscales to identify symptoms of somatization, obsessive compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (Derogatis, 1975). This instrument yields three scores: (a) a Global Severity Index (GSI), (b) a Positive Symptom Total (PST), and (c) a Positive Symptom Distress Index (PSDI). A score of 63 points or higher on the GSI is considered typical of clinically symptomatic participants.

Researchers compiled and collected the online questionnaires containing these measures through the SurveyGizmo Web site. The EXP group received the questionnaire at four time points throughout the study: on the 1st day of treatment, 6 weeks into treatment, on the final day of treatment, and 6 months after treatment had concluded. The WLC group received the questionnaire at five time points throughout the study: the same four intervals as the EXP group, with an additional introductory questionnaire 4 months prior to treatment.

Statistical Analyses

Independent-measures t tests were conducted to compare EXP and WLC groups at baseline on all continuous variables, and Mann-Whitney U Tests were conducted to compare the groups on all categorical variables. To analyze the efficacy of treatment over waiting alone, change scores were calculated in each group separately: between prewaiting and postwaiting in the WLC group, and between pretreatment and posttreatment in the EXP group.
An independent-measures *t* test was used to compare change scores in the different groups. Repeated-measures analysis of variance (RM-ANOVA) tests were conducted to examine participants’ progress over time; these analyses were conducted on the primary outcome variables (the four CBS and the purchasing-recall data as well as the secondary outcome variables, including EAT-26, SI-R, and the BSI scales). For all RM-ANOVAs, partial eta-squared was used to determine effect size. To examine the predictors of outcome, an independent-measures *t* test was conducted to compare all measures between those participants who improved significantly over time and those who failed to improve over time. For those measures that researchers found to be significantly different, a simple regression was run to test whether that measure was a significant predictor of participants’ outcome at the end of the study. For all statistical analyses, the alpha level was set to $\alpha = .05$. All post-hoc analyses included pairwise comparisons that were conducted using Bonferroni’s correction. The Predictive Analytics Software (PASW) Statistical Package Version 18.0 was used to analyze all statistical tests. GraphPad Prism Version 5 was used to create all graphical representations of data.

**RESULTS**

**Psychiatric Comorbidity**

Psychiatric comorbidity with Axis I disorders and ICDs for all participants was assessed at the commencement of the study using the SCID-I and the SCID-ICD Module (see the Methods section; Table 1). Ninety-one percent of participants met the diagnostic criteria for at least one lifetime Axis I disorder, and 91% met the diagnostic criteria for at least one current Axis I disorder. Only one participant did not meet the criteria for either a lifetime or current Axis I disorder.

Out of the 10 participants who met the diagnostic criteria for at least one lifetime Axis I disorder, 6 had a past diagnosis of at least one affective disorder (60%) and 4 had a past diagnosis of at least one anxiety disorder or at least one eating disorder (40%). Three participants presented with past substance abuse or dependence (30%), 3 presented with impulsive-compulsive Internet use (30%), and 2 had past diagnoses of kleptomania (20%).

Out of the 10 participants who met the diagnostic criteria for at least one current Axis I disorder, 8 presented with at least one affective disorder (80%), 5 participants presented with an adjustment disorder (50%) and 4 met the criteria for at least one anxiety disorder (40%). Three presented with at least one somatoform disorder (30%), and 1 participant reached diagnostic criteria for impulsive-compulsive Internet use (10%). No participant reached threshold for a current eating disorder.
TABLE 1 Psychiatric Comorbidity, SCID-I/SCID-ICD, N=11

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>n Current</th>
<th>n Lifetime</th>
<th>% Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affective Disorders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major depressive disorder</td>
<td>0</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>8</td>
<td>8</td>
<td>72.7</td>
</tr>
<tr>
<td><strong>Substance Use Disorders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>1</td>
<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td>Alcohol dependence</td>
<td>0</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Cocaine dependence</td>
<td>0</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Cannabis abuse</td>
<td>0</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td><strong>Anxiety Disorders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social phobia</td>
<td>1</td>
<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td>Posttraumatic stress disorder</td>
<td>0</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>0</td>
<td>3</td>
<td>27.3</td>
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<tr>
<td>Specific phobia</td>
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<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
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<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>Somatoform Disorders</strong></td>
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<td></td>
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<tr>
<td>Somatization disorder</td>
<td>3</td>
<td>3</td>
<td>27.3</td>
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<tr>
<td>Pain disorder</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Undifferentiated somatoform disorder</td>
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<td>3</td>
<td>27.3</td>
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<tr>
<td>Hypochondriasis</td>
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<td>3</td>
<td>27.3</td>
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<tr>
<td>Body dysmorphic disorder</td>
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<td>3</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>Eating Disorders</strong></td>
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<td></td>
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<tr>
<td>Anorexia nervosa</td>
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<td>Bulimia nervosa</td>
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<tr>
<td>Binge eating disorder</td>
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<td>Adjustment Disorder</td>
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<td><strong>Impulse Control Disorders</strong></td>
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<td></td>
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<tr>
<td>Kleptomania</td>
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<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Impulsive-compulsive Internet use</td>
<td>1</td>
<td>4</td>
<td>27.3</td>
</tr>
</tbody>
</table>


Comparisons of the EXP and WLC Groups

No significant differences existed between the EXP and WLC groups at baseline on any of the primary or secondary measures, including amount of money and time spent in compulsive shopping and number of compulsive buying episodes. Additionally, no differences in Global Assessment of Functioning (GAF) score were found at the commencement of the study.

To determine whether the Stopping Overshopping treatment is more effective compared to waiting alone, researchers calculated change scores for each of the CBS. These change scores were compared in the WLC and EXP groups (Table 2). An independent-samples t test showed a significant difference in Richmond CBS change scores between the WLC group and the EXP group. Results also indicated that the change in participants’ YBOCS-SV scores was significantly different in the WLC group when compared with the EXP group. The significant differences observed on the Richmond CBS and
Table 2: Change Score Means for the WLC and EXP Groups to Compare the Efficacy of Waiting Compared to Active SO Treatment (N = 11)

<table>
<thead>
<tr>
<th>Measure</th>
<th>WLC Change Score Mean (SD)</th>
<th>EXP Change Score Mean (SD)</th>
<th>Independent-Sample t Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valence CBS</td>
<td>−1.8 (4.97)</td>
<td>−15.83 (17.72)</td>
<td>ns</td>
</tr>
<tr>
<td>Richmond CBS</td>
<td>−3.2 (4.76)</td>
<td>−16.83 (11.16)</td>
<td>t(9) = −2.528, p &lt; .05</td>
</tr>
<tr>
<td>Faber and O’Guinn CBS</td>
<td>1.16 (1.08)</td>
<td>2.02 (2.07)</td>
<td>ns</td>
</tr>
<tr>
<td>YBOCS-SV</td>
<td>1.8 (8.93)</td>
<td>−10.17 (6.55)</td>
<td>t(9) = −2.323, p &lt; .05</td>
</tr>
</tbody>
</table>

Note: A negative change score indicates a decrease in the score over time. SO = Stopping Overshopping; WLC = waiting-list control group; EXP = experimental group; CBS = Compulsive Buying Scale; YBOCS-SV = Yale-Brown Obsessive Compulsive Scale-Shopping Version.

The YBOCS-SV change scores indicate that both the frequency and severity of compulsive buying symptoms significantly decreased more in the EXP group after Stopping Overshopping treatment than it did in the WLC group after waiting alone. There were no significant differences observed in Valence CBS and Faber & O’Guinn CBS scores between the WLC and EXP groups.

Results do show, however, that in the EXP group, mean scores for all compulsive buying measures went from clinical scores pretreatment, indicating the presence of significant compulsive buying, to nonclinical scores posttreatment, indicating an absence of compulsive buying. In contrast, in the WLC group, mean scores for compulsive buying measures did not change from clinical scores pretreatment to nonclinical scores posttreatment. This suggests that waiting, in and of itself, as compared with involvement in group treatment, failed to reduce compulsive buying scores to a nonclinical range. Although the change scores were not statistically significant on two of the measures, the scores for the EXP group went from clinical to nonclinical on all four measures. By contrast, the WLC group’s scores on all four compulsive buying measures remained in the clinical range throughout the course of the waiting period.

Results of the Primary Outcome Variables

After completion of the waiting period, participants in the WLC group received the same treatment as those in the EXP treatment group and were tested on all measures at pretreatment, midtreatment, posttreatment, and 6-month follow-up. Because no differences were found between the EXP and WLC treatment groups at the beginning of the study, researchers used the entire sample of participants to analyze the efficacy of the Stopping Overshopping group treatment to improve scores on both primary and secondary outcome variables.

RM-ANOVAs were conducted to compare primary outcome variables at all four time points (pretreatment, midtreatment, posttreatment, and
TABLE 3 Primary Outcome Measures: CBS Comparisons Between Mean Pretreatment, Midtreatment, Posttreatment, and 6-Month Follow-Up (N=11)

<table>
<thead>
<tr>
<th>Compulsive Buying Scale</th>
<th>Pretreatment Mean (SD)</th>
<th>Midtreatment Mean (SD)</th>
<th>Posttreatment Mean (SD)</th>
<th>Follow-Up Mean (SD)</th>
<th>RM-ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valence</td>
<td>45.9* (7.2)</td>
<td>38.1* (12.4)</td>
<td>29.1 (11.8)</td>
<td>32.7 (9.9)</td>
<td>( F(1.6, 16) = 12.43, p &lt; .01, \eta^2 = .554 )</td>
</tr>
<tr>
<td>Richmond</td>
<td>33.5* (7.8)</td>
<td>26.1* (10.3)</td>
<td>18.3 (7.8)</td>
<td>19.4 (5.9)</td>
<td>( F(1.9, 19.3) = 14.48, p &lt; .001, \eta^2 = .592 )</td>
</tr>
<tr>
<td>Faber &amp; O’Guinn</td>
<td>-2.77* (2.37)</td>
<td>-1.50* (3.36)</td>
<td>-1.48* (2.68)</td>
<td>-0.20 (2.18)</td>
<td>( F(3, 30) = 7.55, p &lt; .01, \eta^2 = .430 )</td>
</tr>
<tr>
<td>YBOCS-SV</td>
<td>19.1* (5.1)</td>
<td>12.8 (4.7)</td>
<td>8.4 (4.4)</td>
<td>9.2 (4.0)</td>
<td>( F(3,30) = 27.55, p &lt; .001, \eta^2 = .732 )</td>
</tr>
</tbody>
</table>

*Indicates a clinical score.

Note. CBS = Compulsive Buying Scale; RM-ANOVA = repeated-measures analysis of variance; YBOCS-SV = Yale-Brown Obsessive Compulsive Scale-Shopping Version.

6-month follow-up). All analyses for the primary outcome variables can be found in Table 3. Results indicated that Valence CBS scores also significantly improved over time. Specifically, scores improved significantly from pretreatment to posttreatment and from pretreatment to 6-month follow-up \((p < .01)\). Valence CBS scores also improved significantly from midtreatment to posttreatment \((p < .01)\). Importantly, no significant difference was observed between scores at posttreatment and at 6-month follow-up, indicating that participants succeeded at maintaining their improvement 6 months after the cessation of treatment (Figure 1A).

Richmond CBS scores also improved significantly over time, from pretreatment to posttreatment and from pretreatment to 6-month follow-up \((p < .01)\). Scores also improved significantly between midtreatment and posttreatment \((p < .05)\). Data also showed no significant change in Richmond CBS scores between posttreatment and 6-month follow-up, indicating maintenance of improvement in compulsive buying behaviors and symptoms (Figure 1B).

Scores on the Faber & O’Guinn CBS improved over time as well; significant improvements were observed between pretreatment and 6-month follow-up only \((p < .01)\). No significant differences in scores were observed between any of the other time periods (Figure 1C).

Finally, YBOCS-SV scores improved significantly during the course of the study. Pairwise comparisons between pretreatment and posttreatment and between pretreatment and 6-month follow-up \((p < .01)\) showed significant improvement. Pairwise comparisons also showed a significant improvement in YBOCS-SV scores between pretreatment and midtreatment \((p < .05)\) and between midtreatment and posttreatment \((p < .01)\). Scores were not significantly different between posttreatment and 6-month follow-up, indicating that participants were successful in maintaining significant improvement in the severity of compulsive buying symptoms and behaviors (Figure 1D).
FIGURE 1  Pretreatment, Posttreatment, and 6-Month Follow-Up Analyses of Compulsive Buying Measures in All Participants (N = 11). Repeated-measures analysis of variance show significant improvements in all compulsive buying measures, with maintained improvement through the 6-month follow-up (p < .01). Horizontal lines in each graph represent the value that indicates the threshold for the presence of compulsive buying. Scores above each line indicate clinical levels, except for the Faber & O’Guinn Compulsive Buying Scale (CBS) (C) where scores below the line indicate clinical levels. YBOCS-SV = Yale-Brown Obsessive Compulsive Scale-Shopping Version.
TABLE 4 Primary Outcome Measures: Purchase Recall Comparisons Between Mean Pretreatment, Midtreatment, Posttreatment, and 6-Month Follow-Up (N=11)

<table>
<thead>
<tr>
<th>Purchase Recall Variable</th>
<th>First 2 Weeks of Treatment Mean (SD)</th>
<th>Last 2 Weeks of Treatment Mean (SD)</th>
<th>Six-Month Follow-Up Mean (SD)</th>
<th>RM-ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of money spent (dollars)</td>
<td>1,234 (1,173)</td>
<td>273 (487)</td>
<td>247 (266)</td>
<td>$F(2, 20) = 9.423$, $p &lt; .01$, $\eta^2 = .485$</td>
</tr>
<tr>
<td>Amount of time spent (minutes)</td>
<td>326.8 (285.1)</td>
<td>99.1 (164.5)</td>
<td>1.7 (1.8)</td>
<td>$F(2, 10) = 12.686$, $p &lt; .001$, $\eta^2 = .559$</td>
</tr>
<tr>
<td>Number of shopping episodes</td>
<td>7.45 (3.7)</td>
<td>2 (2.28)</td>
<td>2.91 (2.02)</td>
<td>$F(2, 20) = 21.003$, $p &lt; .001$, $\eta^2 = .677$</td>
</tr>
</tbody>
</table>

*Note: RM-ANOVA = repeated-measures analysis of variance.*

Looking at the four compulsive buying measures as a whole, a significant decrease in compulsive buying symptoms and behaviors was reflected in the fact that average compulsive buying scores on all measures were in the clinical range at pretreatment, indicating the presence of significant compulsive buying symptoms, and had shifted into the nonclinical range by 6-month follow-up, indicating that significant compulsive buying symptoms were no longer present.

RM-ANOVAs were also conducted on the amount of money and time spent in compulsive shopping, as well as the number of compulsive buying episodes (Table 4). Results indicated that participants exhibited a significant drop in the amount of money and time spent shopping compulsively and in the number of compulsive buying episodes during the course of the study. Pairwise comparisons showed a significant drop in the amount of money and time spent shopping compulsively as well as a significant drop in the number of compulsive buying episodes between the first 2 weeks of treatment compared with the last 2 weeks of treatment and also compared with 6-month follow-up ($p < .05$). Additionally, there was no significant difference in the amount of money spent or amount of time spent in shopping compulsively, or in the number of compulsive buying episodes during the last 2 weeks of treatment and follow-up (Figure 2). These results indicate that the Stopping Overshopping treatment is associated with a significant reduction in the amount of money and time spent shopping and buying compulsively, as well as a significant reduction in the number of compulsive buying episodes. Furthermore, these results suggest that this improvement is largely maintained at follow-up.

Collectively, these results indicate that the Stopping Overshopping treatment is successful not only at significantly decreasing both the severity and frequency of compulsive buying symptoms and behaviors, but also at reducing the participants’ previously clinical compulsive buying scores to the nonclinical range by the end of the study.
FIGURE 2 Mean Money and Time Spent Compulsive Shopping and Mean Compulsive Shopping Episodes During the First 2 Weeks and Last 2 Weeks of the Study and at 6-Month Follow-Up. Repeated-measures analyses of variance indicate that there was a significant improvement in all three measures between the first and last 2 weeks of treatment and that this improvement was largely maintained at 6-month follow-up ($p < .01$).

Results of the Secondary Outcome Variables

Researchers conducted RM-ANOVAs to compare secondary outcome variables at pretreatment, midtreatment, posttreatment, and 6-month follow-up (Table 5). Significant improvements were found in SI-R total scores. Participants’ scores improved significantly between pretreatment and posttreatment ($p < .05$), and improvements between pretreatment and 6-month follow-up approached significance ($p = .055$).

SI-R clutter scores improved significantly over time. Pairwise comparisons indicated that participants’ scores improved significantly between pretreatment and posttreatment ($p < .05$), and between pretreatment and 6-month follow-up ($p < .01$). Additionally, significant improvement in
SI-R clutter scores was observed between midtreatment and posttreatment ($p < .01$).

Scores on the SI-R Discarding subscale also significantly improved during the course of the study. Post-hoc analyses showed a significant difference between midtreatment and 6-month follow-up only ($p < .05$).

SI-R acquisition scores significantly improved over time as well. Pairwise comparisons showed no significant differences between any of the time points.

Regarding the remaining secondary measures, no significant differences were found in EAT-26 scores, BSI GSI and PST scores, and all BSI subscales during the four time points. An improvement that approached significance was observed in BSI PSDI scores ($p = .052$).

**Predictors of Outcome**

To determine who improved on the primary outcome measures, presence or absence of compulsive buying at pretreatment and 6-month follow-up was calculated using the suggested cutoffs for the four compulsive buying measures for each participant. Those who scored in the clinical range at pretreatment and in the nonclinical range at 6-month follow-up were considered “improved.” Those who scored in the clinical range at pretreatment and did not improve at the 6-month follow-up were labeled “not improved.” Those participants who scored in the nonclinical range at the beginning of treatment were excluded from this analysis.
FIGURE 3 Scatterplot Showing the Relationship Between Pretreatment Eating Attitudes Test (EAT-26) Scores and Valence Compulsive Buying Scale (CBS) Scores at 6-Month Follow-Up. Results show that pretreatment scores on the EAT-26 significantly predict compulsive buying scores on the Valence CBS at 6-month follow-up; the higher the EAT-26 scores, the higher the Valence scores at follow-up ($p = .019$).

For all four compulsive buying measures, age, number of credit cards, SI-R total and all SI-R subscales, BSI GSI, PST, PSDI, and all BSI subscales, amount of debt on credit cards, Global Assessment of Functioning Scale (GAFS), and number of group sessions attended did not differ between the improved and nonimproved participants. EAT-26 scores were significantly higher in nonimproved participants ($M = 29.25, SD = 4.99$) compared with improved participants ($M = 6.0, SD = 3.3$), $t(7) = 8.415, p < .001$. A simple regression analysis showed that on one of the four compulsive buying measures, the Valence CBS, EAT-26 scores significantly predicted the Valence CBS scores at 6-month follow-up, $F(1, 9) = 8.145, p < .05$. Specifically, this result indicates that those with higher EAT-26 scores were less likely to reach nonclinical buying levels after the group treatment (Figure 3).

DISCUSSION

This was the first empirical investigation of a new group treatment for compulsive buying disorder, the Stopping Overshopping model. The results of this pilot study suggest that participation in the 12-week Stopping Overshopping group treatment is accompanied by a significant drop in the reported severity and frequency of compulsive buying symptoms and behavior.

The first phase of the study was a randomized controlled trial that compared an EXP group that received the treatment with a WLC group that waited for a period of 12 weeks with no treatment and then received
the same treatment as the EXP group. Change scores of the WLC and EXP groups (before and after treatment for the EXP group; before and after the waiting period for the WLC group) on all four measures were computed. On two of the four compulsive buying measures, these change scores reached statistical significance, and on the other two measures, the change scores did not. There were, however, important changes in the scores on the CBS in the EXP group at pretreatment and posttreatment that were not seen in the WLC group prewaiting period and postwaiting period. For the EXP group, mean scores on all four CBS were in the clinical range at pretreatment and in the nonclinical range at posttreatment. For the WLC group, mean scores on all four measures were in the clinical range at pretreatment and remained in the clinical range at posttreatment. This indicates that a noticeable change in compulsive buying symptoms and behavior was reported as a result of the Stopping Overshopping treatment.

In recent years, researchers have distinguished between statistical significance and clinical significance in clinical trials. While a statistically significant hypothesis test indicates a very low probability that the research results were obtained by chance, clinical significance refers to whether an intervention causes a noticeable change in the life of the participant (Pintea, 2010). Our results point to the clinical significance of the Stopping Overshopping treatment over waiting alone.

Once the EXP and the WLC groups had both received treatment, data from the two groups were pooled when examining the overall effect of the treatment to increase sample size. For the entire sample, the results of the primary outcome variables suggest significant improvement in participants’ compulsive buying scores on all four measures between pretreatment and posttreatment. This improvement is made more notable by the fact that the mean participant scores on all of these measures began in the clinical range and improved into the nonclinical range between pretreatment and posttreatment. For the Faber & O’Guinn CBS, the Richmond CBS, and the Valence CBS, there were very large effect sizes, indicating that the Stopping Overshopping treatment is effective for reducing the frequency of compulsive buying symptoms and behavior. The results for the YBOCS-SV yielded the largest effect size, suggesting that the Stopping Overshopping model targeted and significantly reduced the severity of compulsive buying symptoms experienced by participants.

There was also a significant reduction in the amount of money and time spent in compulsive buying as well as the number of compulsive buying episodes as reported on the 2-week purchasing-recall form. This is further evidence that the Stopping Overshopping model is effective in decreasing compulsive buying behaviors. These results are consistent with those of Mitchell et al. (2006), whose participants also reported significant reductions in the total amount of money and time spent in compulsive buying and the number of compulsive buying episodes.
Researchers also investigated the extent to which gains made during the course of treatment held up during a 6-month period posttreatment. Between posttreatment and 6-month follow-up, there was no significant change in participants’ compulsive buying scores on any measure. This finding, that participants were able to maintain the positive changes in the severity and frequency of the compulsive buying symptoms at nonclinical levels during a six-month period after the treatment ended, suggests not only that this model is effective in the short-term, but that it also holds promise as a tool for long-term behavior change.

Although it only approached significance, there was some improvement on the BSI PSDI, but not on the GSI or the PST. This might suggest that the distress tolerance training in the group led to an improvement in the participants’ capacity to tolerate negative emotions. There were no reported changes on the EAT-26.

Regarding the secondary measures, results showed that there was a significant improvement on the SI-R as a whole and on each of the three subscales: Clutter, Discarding, and Acquisition. However, it was only on the Clutter subscale that the pretreatment scores were in the clinical range. This is not unexpected, given the fact that discarding is not as significant an issue for compulsive buyers who are not hoarders (Mueller et al., 2007). However, it is somewhat puzzling that the pretreatment acquisition scores were not in the clinical range. The acquisition items on the SI-R relate to acquisitions made for the person himself or herself. On the purchasing recalls in the sample in this study, items purchased were very often gifts for other people. This may, in part, account for the surprisingly low acquisition scores on the SI-R for our sample. The improved scores on all subscales during the course of treatment strongly suggest the relatedness of these two clinical issues. Of the three comparator studies, only Mueller et al. (2008) used the SI-R as a secondary measure. The scores of their CBT group were in the clinical range on all three subscales and on the SI-R as a whole at pretreatment, and there were significant improvements on the Acquisition and Difficulty Discarding subscales, but not on the clutter subscale, during posttreatment.

Although it was not possible to conduct statistical tests comparing our findings with the findings of Mitchell et al. (2006) and Mueller et al. (2008, 2011) for any of the compulsive buying measures, comparisons of the overall trends can be made. The mean YBOCS-SV scores of participants in our study and our three comparator studies suggest that participants in the Stopping Overshopping treatment were comparable in their symptom severity to participants in the other three studies at baseline, posttreatment, and 6-month follow-up. On the YBOCS-SV in all four studies, participants’ mean scores were in the clinical range at baseline and in the nonclinical range both at posttreatment and at 6-month follow-up. On the Faber & O’Guinn CBS, in all four studies, pretreatment scores were in the clinical range. By 6-month follow-up, participants in the current study and in the studies by
Mitchell et al. (2006) and Mueller et al. (2011) had all improved to the non-clinical range, but the Mueller et al. (2008) sample remained at the clinical level, both at posttreatment and at 6-month follow-up. Of the three comparator studies, none used the Valence CBS, but Mueller et al. (2008) used an adapted, validated version of the Valence CBS, the German Compulsive Buying Scale (Raab, Neuner, Reisch, & Scherhorn, 2005), and the results can be compared to those in the current study. On that measure, the mean scores for both samples had improved to nonclinical levels by posttreatment and were maintained at that level at 6-month follow-up. None of the three comparator studies used the Richmond CBS, so no comparisons were possible for that measure. On the whole, the data suggest that both CBT and the Stopping Overshopping model are effective in reducing the severity and frequency of compulsive buying symptoms and behavior.

In the current study, the incidence of comorbidity with other disorders is consistent with existing statistics (Black, Gabel, Hansen, & Schlosser, 2000; Black, Repertinger, Gaffney, & Gable, 1998; Christenson et al., 1994; McElroy, Keck, et al., 1994; Ninan et al., 2000; Schlosser, Black, Repertinger, & Freet, 1994). Specifically, a large number of participants had affective disorders, alcohol and substance abuse or dependence, anxiety disorders, somatoform disorders, eating disorders, adjustment disorder, and compulsive-impulsive Internet use, either at some earlier point in their lifetime or currently. Because 80% of participants reported at least one affective disorder, overshopping behaviors may have constituted an attempt to improve mood/alleviate affective symptoms. This is further supported by the frequency with which participants reported that they overshopped to improve their mood, which they did in their narrative writing, when they made lists of their reasons for overshopping, and during the group meetings.

Although no participants in the present study reported having a current eating disorder, 40% reported at least one past instance of an eating disorder. Lower EAT-26 scores at pretreatment were the only significant predictor of treatment success, which suggests that having eating disorder symptomatology, even at a nonclinical level, may make it harder to use this treatment successfully.

Several studies have reported a positive association between compulsive buying and impulsive-compulsive Internet use (Dittmar et al., 2007; Lyons & Henderson, 2000; Kukar-Kinney et al., 2009; Lejoyeux, Mathieu, Embouazza, Huet, & Lequen, 2007; Mueller et al., 2011). In the current study, more than one quarter of the participants scored positively for current compulsive-impulsive Internet use. The almost-limitless shopping opportunities offered by the Internet, the ability to avoid social interactions, and the opportunity to buy 24 hr per day, 7 days per week unobserved may exacerbate compulsive buying tendencies.

There are many possible explanations for the results acquired in this study. As Mitchell et al. (2006) and Mueller et al. (2008, 2011) demonstrated
in their investigations of the efficacy of group CBT for compulsive buying, there are a good deal of data that suggest the group method is an effective approach to treating this behavior. As the current researchers have hypothesized, elements of the Stopping Overshopping model that likely contributed to the positive findings are that it establishes a homogenous group setting that teaches skills, tools, and strategies designed to help reduce compulsive buying behavior that are practiced throughout the 12 weeks. The group diminishes feelings of aloneness and increases feelings of being understood, exposes participants to feedback from other compulsive buyers to help break through denial, and constitutes an opportunity to witness others in various stages of recovery.

Although the treatment consisted of only 12 sessions, each 1 hr and 40 min in length, because participants were required to read and do written exercises related to the reading throughout the 12 weeks, the actual time spent in therapeutic activities was considerable. Members of the Stopping Overshopping group are encouraged to e-mail the group between sessions, which may have enhanced motivation and engendered increased mindfulness of compulsive buying behavior. This extra group contact was an opportunity for members to offer and receive support during the week—in essence to function as shopping support buddies for each other (Benson, 2008).

The participant attendance and retention data also suggest that the Stopping Overshopping treatment program is a highly motivating format. Participant attendance was extremely high: No group member attended fewer than 9 out of the 12 total sessions. The group members became very connected to each other, as evidenced by the frequent e-mail contact and support between sessions. This social closeness and accountability may have reinforced the members’ commitment to stay in the group, come to the sessions, and complete the assignments.

Once accepted into the study, the dropout rate was zero. Although this compares quite favorably with the findings of Mitchell et al. (2006), where the dropout rate was 25% in the CBT group and 36% in the WLC group, Mueller et al. (2008), where the dropout rate was 19% for the CBT group and 14% in the WLC group, and Mueller et al. (2011), where the dropout rate during the intervention period was 21%, the sample sizes in all three of these studies were considerably larger than in the present study and more groups were held in each of these studies. It is quite possible that there would have been a bigger dropout rate if our sample size had been larger and more groups had been run.

With regard to participants’ overall maintenance of behavioral improvement at 6-month follow-up, it is likely that frequent posttreatment contact among the participants—and occasionally among the participants and the therapist—helped participants maintain and consolidate the gains made during the group. Other posttreatment activities included participation in online
support groups and continuing psychoeducational activities, such as reading, watching videos, and listening to audiotapes with content relevant to recovery from compulsive buying disorder.

Although this study suggests that the Stopping Overshopping model is extremely effective in reducing compulsive buying symptoms and behavior, its limitations should also be noted. The sample sizes of both the EXP and WLC groups were small, which may have made it exceptionally difficult to find statistically significant results in some cases, particularly given the large effect sizes demonstrated across measures. All participants were female, and therefore, the generalizability of our findings is limited. Future research to add to this body of data should examine the effects of the Stopping Overshopping model on larger and more diverse sample sizes, especially samples that include men. Additionally, all measures were dependent on participant self-report, which could potentially bias the results stated here.

Another potential limitation of the study was that the EXP group met during the Christmas shopping season, which tends to be a challenging time for overshoppers, while the WLC group had no traditional seasonal shopping pressure. Although the WLC group began treatment after the Christmas season and there were similar positive findings, to counter the possibility of seasonal variation, future studies should ensure that all groups are engaged during the same time period.

Follow-up extended only to a single assessment 6 months after completion, which is a relatively limited window of time in which to track participant progress, given that compulsive behaviors of this nature are so often chronic. Given the promising findings of this investigation at 6-month follow up, future research should center on the longer-term effects of the Stopping Overshopping model, following participant progress for a more robust period of time (e.g., 1 year, 18 months, 2 years). Results of longer-term follow-up could also shed light on the necessity and usefulness of maintenance treatment. For example, if the results of longer-term assessments suggested that initial treatment gains were not holding, maintenance treatments like continuing structured contact with other group members, participation in an online support group or a blog for compulsive buyers, and/or an occasional “booster” session with the therapist would be warranted. Given the recent boom in technological interventions for addictive disorders, future studies might examine the efficacy of these and other self-help interventions such as text messaging (SMS) to support initial recovery or continued behavior change.

Participants were allowed to maintain their previous antidepressants if doses were kept stable or could remain in concurrent psychotherapy, as long as they had been in therapy for 6 months before the study began. Thus, medication and/or psychotherapy could possibly have confounded the results. There were, however, no significant differences in the frequencies of use of medication or psychotherapy between the CBT and WLC groups.
Finally, because no comparison treatment was used, we cannot be sure that the outcome was the result of this specific therapy. It is possible that involvement in a more general therapy might have produced the same results. It is also possible that a nontherapy group as opposed to a wait-list group would have constituted a more valid comparison group to rule out the possibility that regular meetings without treatment would still improve outcomes. Future research might use a comparison therapy not specifically targeted toward reducing compulsive buying behavior and a nontherapy group to better ascertain the impact of this specific targeted therapy.

Further investigation could examine the efficacy of the Stopping Overshopping model as it might be applied to other clinical treatment models (i.e., individual treatment or self-help), given that empirical research on the efficacy of individual treatment of compulsive buying is quite limited (Kellett & Bolton, 2009) and only one empirical study exists on the efficacy of self-help (Mueller et al., 2011). It would also be important to research the mechanisms of action of the treatment. This research could shed light on which elements of the treatment are most likely to promote change, which are expendable, and which are better suited to help a particular type of compulsive buyer as opposed to another, leading to improvements in care. To understand the mechanisms of the Stopping Overshopping model, future research might compare the formalized Stopping Overshopping model with comparison treatments that isolate a single treatment component.

Considered the surprised-upon addiction because consumption fuels our economy, compulsive buying is too often under-recognized and underdiagnosed. As the growing body of research suggests, the severity and frequency of compulsive buying symptoms and behavior can be addressed clinically to excellent effect. It is imperative to study the best conditions under which these improvements can occur to continue to deepen our understanding and develop effective treatment options for this serious, and extremely prevalent, clinical issue.

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