Fluvoxamine in the Treatment of Compulsive Buying

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Background: The authors report the results of an open trial of fluvoxamine in the treatment of compulsive buying.

Method: Ten nondepressed subjects were recruited through word-of-mouth and met restrictive inclusion/exclusion criteria. Subjects were assessed with the Yale-Brown Obsessive-Compulsive Scale modified for compulsive buying, the Clinical Global Impression scale, and other measures. After a single-blind 1-week placebo run-in, subjects received fluvoxamine up to 300 mg daily for 9 weeks.

Results: Nine of 10 subjects improved and were less preoccupied with shopping, spent less time shopping, and reported spending less money.

Conclusion: We conclude that compulsive buyers can be recruited for research and their symptoms measured and monitored and, finally, that fluvoxamine may be effective in its treatment.

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Compulsive buying creates an irresistible urge to buy followed by tension relief or gratification.[1] Not formally recognized in DSM-IV, compulsive buying has been the subject of growing interest in the psychiatric literature. Three recent reports[2–4] on a total of 90 subjects indicate that typical compulsive buyers are women in their 30s who have been excessively and inappropriately buying and spending for many years and who have experienced personal distress, financial debt, and marital and family discord as a result of the buying. Research has shown it to be associated with significant psychiatric comorbidity, particularly mood and anxiety disorders, substance use disorders, eating disorders, disorders of impulse control, and personality disorders.[2–4]

The etiology of compulsive buying is unknown, but several researchers have compared it to obsessive-compulsive disorder, perhaps due to the similarity between preoccupations with buying and obsessional thoughts reported by patients with obsessive-compulsive disorder (OCD).[2–4] The repetitive, often ritualistic buying sprees have been compared with compulsive rituals. Further, compulsive buyers tend to achieve high scores on the Maudsley Obsessive-Compulsive Inventory, demonstrating greater compulsiveness in general.[5] Lastly, a report from McElroy et al.[6] that three compulsive shoppers responded to antiobsessional medication suggested the possibility that compulsive buying could represent a variation of obsessive-compulsive disorder.

Our own work[4] with compulsive buyers led us to interview 46 subjects on whom we have already reported and prompted us to design a study to treat compulsive buyers with antiobsessional medication, hypothesizing that subjects would respond the same way that patients with OCD would. The results are reported herein.

METHOD

Subjects

Ten subjects received fluvoxamine in an open-label study to treat compulsive buying cognitions and behaviors. Subjects were recruited by word-of-mouth and were screened to meet restrictive inclusion and exclusion criteria. Briefly, subjects had to meet diagnostic criteria proposed by McElroy et al.[2] for compulsive buying and to have had a duration of compulsive buying of at least 1 year. They had to achieve a score greater than or equal to two standard deviations above the mean on the Compulsive Buying Scale, an instrument shown to differentiate compulsive from noncompulsive buyers.[7] They were required to be between 18 and 65 years and could not be clinically depressed. Their score on the Hamilton Rating Scale for Depression (HAM-D)[8] had to be less than 18, and they could not score more than 1 on the first item. We wanted to make certain that any improvement from fluvoxamine would not be attributed to its antidepressant properties. Additionally, they could not have schizophrenia, a primary anxiety disorder including OCD, a bipolar disorder, current substance abuse, or a severe personality disorder, and they could not present a serious suicidal risk. These disorders were reasons for exclusion since their presence could cause diagnostic confusion or impair cooperation with the study protocol.

After meeting the study criteria and giving written informed consent according to procedures approved by our Institutional Review Board, subjects entered a 7-day single-blind placebo run-in. Our plan was to exclude persons achieving more than a 25% improvement in their shopping scale score (described below) or a score of 1 or 2 on the global improvement item of the Clinical Global Impression scale (CGI)[9] rating, but no subject responded to placebo.

Subjects were then given fluvoxamine in flexible dosage, starting with a 3-week titration phase followed by a 6-week maintenance phase. Fluvoxamine was initiated at a dose of 50 mg at bedtime and gradually increased in increments of 50 mg every 4 days during the titration phase. After Day 14, the dose could be adjusted according to the patient's response and tolerance to a maximum of 300 mg daily. Doses in excess of 150 mg were divided. Subjects were seen weekly during the titration phase and every 2 weeks during the maintenance phase. At the end of Week 9, the medication was tapered over 3 to 4 days. Subjects were contacted by telephone at weekly intervals for 3 weeks and asked to come in at Week 13 for final assessment.

Assessments

Baseline assessments included the Compulsive Buying Scale[7] and the Yale-Brown Obsessive-Compulsive Scale-Shopping Version (YBOCS-SV), which is a modification of the original instrument[10] used to assess cognitive and behavioral components of compulsive buying. The psychometric properties of this instrument are excellent and are reported elsewhere.[11] Psychiatric comorbidity was assessed with the Structured Clinical Interview for DSM-III-R (SCID),[12] the Structured Interview for DSM-III Personality Disorders, Revised (SIDP-R),[13] and the Minnesota Impulsive Disorders Interview (MIDI).[3] Subjects also received the HAM-D.[8] Improvement was assessed with the YBOCS-SV, the National Institute of Mental Health Obsessive-Compulsive Scale,[14] three CGI ratings,[9] and the Patient Self-Rating Scale,[9] which is a seven-item scale that compares the patient's present status with that before treatment. The Sheehan Disability Scale[15] was used to assess work, social life, and family life disability. Adverse experiences were recorded at each visit.

Data Analysis

One-way repeated measures analysis of variance was performed on rating scales both for the time period of baseline to Week 9 (treatment phase) and also for the discontinuation phase (Weeks 10 to 13) where we included Week 9 in the analysis as the baseline measure; we used the SAS-PROC GLM procedure.[16] We also compared baseline with subsequent measures to determine the week at which mean values became significantly different from baseline. We used the paired t test to compare means of rating scales at Week 13 directly with means at baseline. We did this by running the SAS PROC means procedure on the difference scores.

RESULTS

Table 1 shows the sociodemographic and illness features of the sample. There were nine women and one man. Their mean ± SD age was 41.4 ± 9.2 years, while their mean ± SD age at illness onset was 20.2 ± 7.6 years. There was substantial psychiatric comorbidity, and although none were currently depressed, six had a history of depression, four a history of alcohol or other substance abuse, two a history of an eating disorder, one a history of panic disorder, and one a history of attention-deficit disorder. Four had a current specific phobia, one a current generalized anxiety disorder, and another a current social phobia. Only one met criteria for a personality disorder (obsessive-compulsive). All were interested in clothing, but other shopping interests included groceries, toys, shoes, makeup, furniture, and knickknacks. Seven subjects shopped primarily in department stores, but four shopped at thrift or consignment shops, three at discount stores, and two at garage sales. All but one had a family history of psychiatric illness, including family members with depression, alcohol and other substance abuse, suicide attempts, or suicide. Four subjects described female relatives with compulsive buying.

Mean scores for the total YBOCS-SV and for both the obsession and compulsion subscales significantly decreased during the 9-week study (Table 2). Subjects showed a significant positive change for all the other scales as well, except for the HAM-D. Scores on five of the nine scales had improved significantly over baseline by the end of Week 2 or 3. The Sheehan Disability Scale scores for family life disability did not significantly improve until Week 5. Scores on three scales, the YBOCS-SV (including both subscales), the Patient Self-Rating Scale, and the CGI-Improvement scale, were significantly improved over baseline by the end of the first week.

During the discontinuation phase only two scales, the HAM-D and the CGI-Severity score, showed a significantly worsening time effect from Week 9 to Week 13 (Table 2). The YBOCS-SV obsession subscale, the Patient Self-Rating Scale, and the CGI-Improvement score were significantly worse at the end of Week 13 when compared to Week 9, even though the overall time effect was nonsignificant. While the different scales showed a worsening from Week 9 to Week 13, all scales except the HAM-D and the CGI-Improvement scale were still significantly improved at Week 13 compared with baseline.

The Compulsive Buying Scale score at baseline was not significantly correlated with either improvement or percentage of improvement in the YBOCS-SV score from baseline to Week 9.

Table 3 shows the overall results for the 10 subjects. As can be seen, nine of 10 subjects were classified as respond-

Table 1. Description of 10 Subjects With Compulsive Buying*

Subject Number	Gender	Age (y)	Age at Onset (y)	Marital Status	Axis I Comorbidity	Axis II Comorbidity	Main Buying Interests	Main Buying Venues	Family History
1	F	51	20	M	History of MDD	None	Clothing, groceries	Department stores, grocery stores	Sister: suicide attempts, shopper
2	F	52	14	M	History of MDD, alcohol dependence, polysubstance abuse	None	Clothing, shoes	Consignment and thrift shops	Father: alcohol dependence Daughter: MDD, alcohol dependence, committed suicide
3	F	45	18	D	History of MDD, alcohol abuse, current specific phobia	OC	Clothing, knickknacks	Discount stores, consignment and thrift shops	Sister: alcohol/drug abuse Sister: MDD Sister: alcohol abuse
4	F	55	40	D	None	None	Clothing, groceries, furniture, toys	Garage sales, discount stores, consignment and thrift shops	Father: alcohol dependence Daughter: alcohol/drug abuse
5	F	30	18	M	History of MDD, alcohol abuse, current specific phobia	None	Clothing, toys, groceries	Department stores, discount stores, grocery stores	Father: MDD, suicide Half-sister: drug abuse Mother: shopper
6	F	38	20	M	Current specific phobia	None	Clothing, makeup, groceries	Department stores, discount stores	Sister: unknown psychiatric disorder
7	M	32	24	M	Alcohol abuse in remission, pathological gambling in remission, attention-deficit disorder in remission	None	Clothing, collectibles	Department stores	None
8	F	34	15	M	Anorexia nervosa, bulimia nervosa, both in remission	None	Clothing	Department stores	Mother: shopper Sister: shopper Sister: shopper Sister: shopper
9	F	44	18	M	Panic disorder in remission, anorexia nervosa in remission, current social phobia	None	Clothing	Personal shopper, department stores	Father: alcohol dependence Mother: alcohol dependence, MDD Brother: alcohol dependence
10	F	33	15	M	MDD in remission, current GAD	None	Clothing	Discount stores, consignment and thrift shops, garage sales	Father: MDD Mother: shopper Brother: MDD Brother: MDD, suicide attempt

*Abbreviations: GAD = generalized anxiety disorder; MDD = major depressive disorder; OC = obsessive-compulsive.

Table 2. Mean ± SD Scores on Measures of Compulsive Buying During Both Treatment and Discontinuation Phases of Study*†

	Week of Study				Repeated Measures Time Effect (BL–W9)	Repeated Measures Time Effect (W9–W13)	Paired t Test Week 13 vs Baseline
Scale	Baseline (N = 10)	Week 1 (N = 10)	Week 9 (N = 9)	Week 13 (N = 5)	p Value	p Value	p Value
YBOCS-SV	21.1 ± 2.4	13.1 ± 4.5	6.4 ± 5.2	12.0 ± 4.5	< .0001	.20	.03
Obsession subscore	10.8 ± 1.2	6.5 ± 2.2	3.0 ± 2.5	6.4 ± 2.6	< .0001	.18	.05
Compulsion subscore	10.3 ± 1.9	6.6 ± 2.6	3.4 ± 2.7	5.6 ± 2.1	< .0001	.23	.05
NIMH-OC	6.2 ± 1.2	5.2 ± 1.5	2.6 ± 1.1	4.4 ± 1.1	< .0001	.11	.004
HAM-D	5.4 ± 2.0	5.3 ± 4.4	3.0 ± 3.4	7.8 ± 3.2	.18	.004	.29
Patient Self-Rating	4.0 ± 0.5	2.7 ± 0.8	1.2 ± 0.7	1.8 ± 0.4	< .0001	.25	.0006
CGI-Severity	4.3 ± 0.5	3.4 ± 1.0	1.7 ± 1.0	2.8 ± 0.4	< .0001	.05	.005
CGI-Improvement	0.4 ± 1.3	2.7 ± 0.8	1.2 ± 0.7	2.2 ± 0.4	.002	.28	.18
Sheehan Disability Scale							
Work	2.7 ± 1.5	1.6 ± 1.5	0.3 ± 1.0	0.6 ± 0.9	.003	.30	.02
Social life	2.8 ± 1.4	1.8 ± 1.2	0.2 ± 0.4	0.6 ± 0.5	.0003	.55	.01
Family life	2.9 ± 1.0	1.9 ± 1.2	0.4 ± 1.0	1.3 ± 1.0	.02	.15	.02

*Abbreviations: CGI = Clinical Global Impression scale; HAM-D = Hamilton Rating Scale for Depression; NIMH-OCS = National Institute of Mental Health Obsessive-Compulsive Scale; YBOCS-SV = Yale-Brown Obsessive-Compulsive Scale-Shopping Version.
†For all scales, except CGI-Improvement, a higher score is worse.

Table 3. Summary of Individual Outcome in 10 Subjects With Compulsive Buying

Subject	Baseline YBOCS-SV	Week 9 YBOCS-SV	Week 9 Dose (mg/d)	Responder	Week 13 YBOCS-SV	Remediated
1	18	4	150	Yes	15	Week 13
2	22	3	200	Yes	17	Week 13
3	25	9	300	Yes	6	Week 13
4	24	2	200	Yes	13	Week 13
5	22	7	150	Yes	…	Week 10
6	18	4	100	Yes	9	No
7	19	4	300	Yes	…	No
8[a]	22	3	200	Yes	…	No
9	20	6	150	Yes	…	Week 12
10	21	19	300	No	…	Week 11

[a]Patient failed to return for her Week-9 visit, so the YBOCS-SV and dosage are at Week 8.

ers (defined as greater than or equal to 50% improvement in the YBOCS-SV score). The mean ± SD fluvoxamine dosage at Week 9 was 205 ± 72.5 mg. Of the nine who improved, Subjects 4, 6, and 8 improved by Week 1; Subjects 2, 7, and 9 by Week 2; Subjects 1 and 5 by Week 3; and Subject 3 by Week 5. At Week 9, the end of the study, Subject 8 was lost to follow-up. By Week 10, Subject 7 was also lost to follow-up and Subject 5 requested to be remediated. At Week 11, Subject 10 requested remedication. At Week 12, Subject 9 requested remedication. By Week 13, five subjects were remaining in the study, and four requested remedication. Thus, seven of the original 10 subjects requested continuation therapy.

The drug was well tolerated, and no subject dropped out because of adverse effects. Frequency of adverse effects is reported in Table 4.

Table 4. Frequency of Adverse Events

Event	N
Sedation	7
Diarrhea	3
Nausea	3
Insomnia	3
Increased appetite	3
Headache	3
Lacking motivation	3
Dry mouth	3
Dreams	2
Abdominal cramping	2
Stomachache	2
Increased anxiety	2
Jitteriness	2
Increased awareness of pain	1
Bruising	1
Decreased appetite	1
Congestion	1
Cough	1
Lower back pain	1
Jaw clenching	1
Mood instability	1
Leg movements	1
Muscle tightness	1
Racing thoughts	1
Increased sexual desire	1
Thinking slower	1
Vomiting	1
Visual disturbance	1
Urinary urgency	1
Increased weight gain	1

DISCUSSION

The results demonstrate that persons with compulsive buying can be identified and successfully recruited for study, and that their symptoms of compulsive buying can be measured for severity and monitored for change. Most importantly, fluvoxamine, a serotonin reuptake inhibitor antidepressant, appears to be effective in its treatment since nine of 10 subjects were considered responders. We cannot discount the contribution of the placebo effect, since it can be argued that the subjects' high level of interest in the study and their general participation could have led to improvement without medication. Placebo response rates ranging up to 50% are not uncommon in studies of depression and anxiety disorders[17,18]; therefore, it is conceivable that a substantial placebo response could have occurred in these subjects as well. Furthermore, none of the assessments were blind, and investigator bias could have affected the results.

There has been relatively little in the psychiatric literature about the definition of compulsive buying or its symptoms and psychiatric comorbidity. On the basis of our earlier work,[4] and that of others,[2,3] we believe our compulsive buyers were typical, albeit older than those previously described. Their age at onset, chronicity (all reported a chronic fluctuating course), presence of psychiatric comorbidity, family histories, and major buying interests were all consistent with previously published reports about compulsive buyers.[1] Likewise, there is little in the literature about measuring severity of illness and monitoring change in compulsive behavior. For this clinical trial, we modified the Yale-Brown Obsessive-Compulsive Scale to take into account cognitions and behaviors seen in compulsive buyers and have described its psychometric properties.[11]

We were struck by the similarities between compulsive buyers and patients with OCD. Compulsive buyers reported intrusive thoughts and preoccupations of shopping

and spending, and many would elaborately plan their buying sprees. Shopping was prompted by near obsessional thinking in almost all subjects. Mere window-shopping was unsatisfying to subjects who described a need to possess objects. While the shopping experience itself was generally described as exciting, leading to feelings of happiness or power, most experienced a letdown afterward. Feelings of guilt and shame were nearly universal. The married subjects described frequent arguments or discord with their spouse involving their shopping behavior; several subjects purposely hid their purchases from their spouse, and many kept their spouse in the dark about financial problems. Several described hoarding of objects, not unlike hoarding seen in patients with OCD. Subject 4 described how her children, disgusted by her compulsive shopping, would literally clear her house out once a year. Afterward, she would again fill the house with newly purchased goods. Unlike the true obsessional patient, she did not seem to mind the family's intrusion.

The main difference between those with compulsive buying and those with OCD had to do with the patients' attitudes. Patients with OCD view obsessions and compulsions as unwanted; compulsive buyers describe shopping as fun, exciting, or desirable, at least initially. By the time they entered the study, all were self-identified compulsive shoppers and realized the toll it was taking from their lives. Most reported they were "embarrassed" or "ashamed" of their buying compulsion.

We noticed other similarities with OCD patients as well. After 3 to 5 weeks of treatment, subjects reported fewer intrusive thoughts and preoccupations with shopping. They described being better able to resist their shopping urges and were spending less time shopping. By the end of the 9-week treatment study, their shopping behavior had significantly lessened. They were spending less money, and all reported feeling better about themselves since they were able to curb their inappropriate urges. For example, Subject 9 reported spending nearly $200 per week on clothing out of his monthly take home pay of around $1000. At the end of Week 9, he had reduced his weekly spending to $50. Married subjects reported their spouses had noticed the improvement, and several reported they were now paying off their debts, rather than accumulating new ones.

The discontinuation phase was equally interesting. Subjects were tapered off fluvoxamine over a few days to minimize discontinuation symptoms[19] and were monitored for 4 weeks. Although two were lost to follow-up relatively early, and only six completed the 4-week phase, we were struck by how the thoughts and preoccupations of shopping, as well as the shopping itself, gradually returned, although at Week 13 subjects were still not as severely ill as they had been at baseline.

The results argue strongly for additional studies. We currently have under way a randomized, double-blind placebo-controlled trial to establish the effectiveness of fluvoxamine. A larger sample will allow us to look at predictors of response and enable us to look at particular subtypes (e.g., with psychiatric comorbidity vs. without). The dosage required for optimal response needs further study. (The mean dosage used in this trial is lower than that typically used to treat patients with OCD, and subjects also tended to respond earlier.[20]) Additionally, we need to carefully assess continuation therapy, since subjects seem to relapse when the drug is discontinued. Other forms of treatment for compulsive buying, including cognitive-behavioral therapy and group therapy, have not been adequately studied and these, in combination with medication, might offer the best treatment result for subjects with a severe buying problem.

Drug name: fluvoxamine (Luvox).

REFERENCES

1. Black DW. Compulsive buying: a review. J Clin Psychiatry 1996;57(suppl 8):50–54
2. McElroy SL, Keck PE Jr, Pope HG Jr, et al. Compulsive buying: a report of 20 cases. J Clin Psychiatry 1994;55:242–248
3. Christenson GA, Faber RJ, de Zwann M. Compulsive buying: descriptive characteristics and psychiatric comorbidity. J Clin Psychiatry 1994;55: 5–11
4. Schlosser S, Black DW, Repertinger S, et al. Compulsive buying: demography, phenomenology, and comorbidity in 46 subjects. Gen Hosp Psychiatry 1994;16:205–212
5. O'Guinn TC, Faber RJ. Compulsive buying: a phenomenological exploration. Journal of Consumer Research 1989;16:147–157
6. McElroy S, Satlin A, Pope HG Jr, et al. Treatment of compulsive shopping with antidepressants: a report of three cases. Ann Clin Psychiatry 1991; 3:199–204
7. Faber RJ, O'Guinn TC. A clinical screener for compulsive buying. Journal of Consumer Research 1992;19:459–569
8. Hamilton M. Developing a rating scale for primary depressive illness. Br J Soc Psychol 1967;6:278–296
9. Guy W. ECDEU Assessment Manual for Psychopharmacology. Rockville, Md: US Dept Health, Education, and Welfare; 1976:217–222
10. Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown Obsessive-Compulsive Scale, I: development, use, and reliability. Arch Gen Psychiatry 1989;46:1006–1011
11. Monahan P, Black DW, Gabel J. Reliability and validity of a scale to measure change in persons with compulsive buying. Psychiatry Res 1996; 64:59–67
12. Spitzer RL, Williams JBW, Gibbon M. Structured Clinical Interview for DSM-III-R (SCID). New York, NY: Biometric Research, New York State Psychiatric Institute; 1989
13. Pfohl B, Blum N, Zimmerman M, et al. Structured Interview for DSM-III Personality Disorders, Revised. Iowa City, Iowa: University of Iowa; 1987
14. Insel TR, Murphy DL, Cohen RM, et al. Obsessive-compulsive disorder: a double-blind trial of clomipramine and clorgyline. Arch Gen Psychiatry 1983;40:605–612
15. Sheehan DV. The Anxiety Disease. New York, NY: Bantam Books; 1986
16. SAS Institute Inc. SAS/STAT Users Guide, Version 6, vol 2. 4th ed. Cary, NC: SAS Institute; 1989
17. Stewart JW, McGrath PJ, Liebowitz MR, et al. Treatment outcome validation of DSM-III depressive subtypes. Arch Gen Psychiatry 1985;42: 1148–1153
18. Coryell W, Noyes R. Placebo response in panic disorder. Am J Psychiatry 1988;145:1138–1140
19. Black DW, Wesner R, Gabel J. The abrupt discontinuation of fluvoxamine in patients with panic disorder. J Clin Psychiatry 1993;54:146–149
20. Rasmussen SA, Eisen JL, Pato MT. Current issues in the pharmacologic management of obsessive-compulsive disorder. J Clin Psychiatry 1993; 54(6, suppl):4–9