



## Review article

## Psychotherapy for compulsive buying disorder: A systematic review



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## ABSTRACT

Based on a literature review, the purpose is to identify the main therapeutic approaches for the compulsive buying disorder, a present time disorder characterized by excessive and uncontrollable concerns or behaviors related to buying or expenses, which may lead to adverse consequences. The systematic review was carried out by searching the electronic scientific bases Medline/Pubmed, ISI, PsycInfo. The search was comprised of full-text articles, written in Portuguese and English, with no time limit or restrictions on the type of study and sample. A total of 1659 references were found and, by the end, 23 articles were selected for this review. From the articles found, it was determined that, although there are case studies and clinical trials underlining the effectiveness of the treatment for compulsive buying, only those studies with a focus on the cognitive-behavioral therapy approach make evident the successful response to the treatment. The publication of new studies on the etiology and epidemiology of the disorder is necessary, in order to establish new forms of treatment and to verify the effectiveness and response of the Brazilian population to the existing protocols.

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## 1. Introduction

The compulsive buying disorder has been a subject of growing interest to healthcare professionals (Black, 2001), motivated largely by the increase in studies and publications in the area of compulsive behaviors (Hollander et al., 1991; Koran, 1999). Originally described by the German psychiatrist Emil Kraepelin (Kraepelin, 1915), almost

a century ago, oniomania (from Greek *onios*, for sale, and *mania*, insanity) or compulsive buying disorder remains, so far, relatively understudied. Eugen Bleuler (1930) classified the compulsive buying disorder as a “reactive impulse”, along with kleptomania e pyromania. In his book he mentions: “The particular element is impulsiveness; they cannot help it, which sometimes even expresses itself in the fact that the patients are absolutely incapable to think differently, and to conceive the senseless consequences of their act, and even the possibility of not doing it” (Bleuler, 1930, p. 540). Krueger (1988) and Winestine (1985) have given an account of clinical cases of oniomania from the perspective of psychoanalysis, which described the exaggerated buying behavior. In 1960,

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**Table 1**

Diagnostic criteria for compulsive buying (reproduced from McElroy et al. (1994)).

Maladaptive preoccupation with buying or shopping, or maladaptive buying or shopping impulses or behavior, as indicated by at least one of the following:
1. Frequent preoccupation with buying or impulses to buy that is/are experienced as irresistible, intrusive and/or senseless
2. Frequent buying of more than can be afforded, frequent buying of items that are not needed, or shopping for longer periods of time than intended
3. The buying preoccupations, impulses or behaviors cause marked distress, are time consuming, significantly interfere with social or occupational functioning, or result in financial problems (e.g. indebtedness or bankruptcy)
4. The excessive buying or shopping behavior does not occur exclusively during periods of hypomania or mania

“prodigality” was added to the French Psychiatric Manual, and it was defined as an abnormality of the instinct of self-preservation, affecting properties and possessions as mentioned by Lejoyeux et al. (2007) and Basquin et al. (2009)).

A study presented multiple cases with three patients treated with antidepressants, who achieved improvements on compulsive buying symptoms (McElroy et al., 1991). Subsequently, in 1994, a study was published with 20 participants, in which they postulate the main diagnostic criteria of this disorder and assess a suggestion of drug therapy in association with psychotherapy (McElroy et al., 1994).

It has been established the criteria of the disorder and pointed out the clinical characteristics of dependence (McElroy et al., 1994). They described the pattern related to “craving” and developing compulsive buying. This compulsive behavior occurs in response to negative feelings, in the attempt of suppressing the intensity of these emotions, replacing them with euphoria or relief. However, the decrease in these emotions is transitory, and it is replaced by an increase in anxiety or depression, as Faber and Christenson (1996). Compulsive buyers are more prone to episodes of lack of control with regard to buying when they experience emotions such as anger, loneliness, frustration or irritability. Thus, buying works as the key emotional regulatory factor, even though the “positive” feelings are momentary.

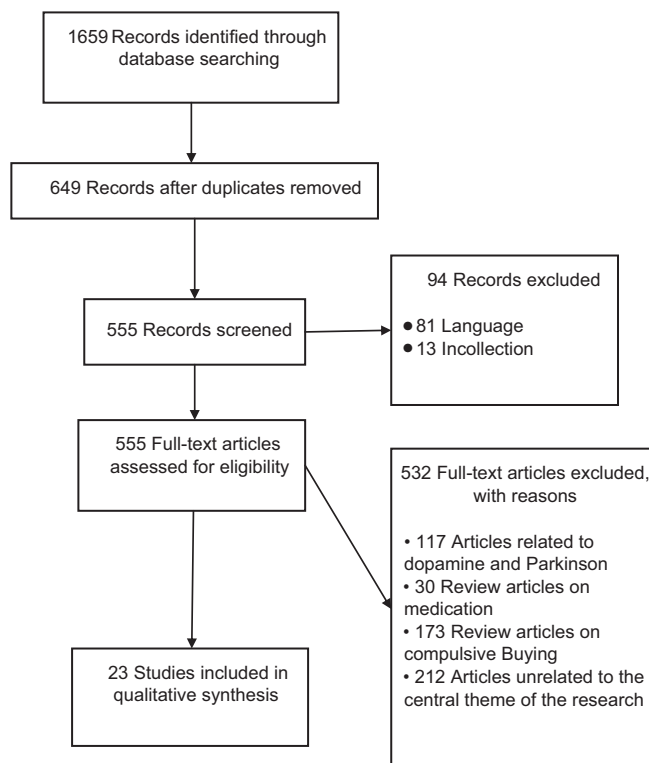
Was presented the clinical classification and definition for the disorder, acknowledging the cognitive and behavioral components. This classification has achieved wide acceptance and is commonly used in the compulsive buying scientific literature, as described in Table 1 (McElroy et al., 1994). Currently, compulsive buying was not included at diagnostic criteria at Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) (APA, 2013).

In spite of not being classified at DSM-V (APA, 2013), there is a debate on which would be the most appropriate nosological category for the compulsive buying disorder. The association between the obsessive-compulsive and compulsive buying disorders is common. The study (McElroy et al., 1994) examines the singularities and similarities between the two. Thus, compulsive buying is considered a disorder of the obsessive-compulsive spectrum, since it is common for both disorders to overlap and to present similar traits in their evolution (Hollander et al., 1991). Other authors (Koran, 1999; Black, 2001) continued to point out impulsive character of buying, in association with impulse-control disorders, because it has biological similarities to disorders such as kleptomania, pyromania, pathological gambling, thus being a behavioral dependence disorder (Lejoyeux et al., 2000).

As far as the therapeutic proposal is concerned, there is no standard approach for treating the compulsive buying disorder. Treatment recommendations are, mostly, empirical expressions of theoretical clinical guidelines. The present study aims to systematically review the literature on the most used therapeutic interventions for the compulsive buying disorder up until this moment.

## 2. Methodology

The bibliographic research was carried out in three international electronic databases, Web of Science (ISI), PsycInfo and Medline/Pubmed, using the following search descriptors: *Compulsive Buying AND Treatment*, *Compulsive Buying AND Therapy*, *Compulsive Shopping AND treatment*, *Compulsive Shopping AND therapy*,

**Fig. 1.** The process for the inclusion for eligibility.

*Pathological Buying AND treatment, Pathological Buying AND therapy, Pathological Shopping AND treatment, Pathological Shopping AND Therapy, Oniomania AND treatment, Oniomania AND therapy, Compulsive Buying AND Cognitive Behavioral Therapy.* It was carried out in december 2013 by two independent researchers. No time restriction was used in any of the databases.

## 3. Results

A total of 1659 references were found (Web of Science=449; PsycInfo=603; Medline/Pubmed=607). One thousand and ten duplicate articles were ruled out, 81 references in languages other than English or Portuguese were also removed.

Abstract analysis consists of 555 articles, 532 of which were removed as a result of not meeting the criteria for inclusion in the research: clinical trials, randomized trials and case studies.

Among the remaining articles, forty four were retrieved and included in the systematic review, as shown in Fig. 1.

Hundred and ninety articles were found in the Web of Science database. Following the abstracts were analyzed, 15 articles were analyzed. Eight of the articles found presented review studies and were not included in this article and three cases reported cases examples in textbook. Case studies on compulsive buying disorder were transcribed in two articles. Three other articles were focused on clinical trials. Even though 28 articles mentioned the disorder, it was not the focus of their study.

**Table 2**  
Published studies on compulsive buying disorder, treatment and therapy.

Date	Title	Authors	Journal	Sample	Study	Mean age (years) outcome	Type of interventions	Measures	Main effects
1985	Compulsive shopping as a derivative of a childhood seduction	Winestine, M.C.	The Psychoanalytic Quarterly	1 Participant (1 woman)	Case study	30 years	Psychoanalysis	Were not used	Does not describe improvement of the patient
1988	On compulsive shopping and spending: a psychodynamic inquiry	Krueger, D.W.	American Journal of Psychotherapy	4 Participants (4 women)	Case study	18–30 years	Psychodynamic approach	Were not used	Only one of four patients presented improvement of symptoms of compulsive buying behaviors
1992	Psychoanalytic psychotherapy for a woman with diagnoses of kleptomania and bulimia	Schwartz, H.J.	Hospital & Community Psychiatry	1 Participant (1 woman)	Estudo de caso	26 years	Psychoanalytical psychotherapy for 10 years	Have not been described	Does not describe improved
1994	Compulsive buying: a report of 20 cases	McElroy, S.L. and Keck, P.E. and Pope, H.G. and Smith, J.M.R. and Strakowski, S.M.	Journal of Clinical Psychiatry	20 Cases 9 (attended) (16 women, four men)	Clinical trial	39 ± 11 S.D. (range, 21–57)	Psychotherapy or support group in association with antidepressants	SCID-III <sup>a</sup> , excessive time consumption interference with interpersonal, role or vocational functioning interview	22% of these patients showed improvement in symptoms of oniomania
1996	Cue exposure in compulsive buying	Bernik, M.A.; Akerman, D.; Amaral, J.A. and Braun, R.C.	Journal of Clinical Psychiatry	2 Cases (2 women)	Case study	32.5 years	Clomipramine (150 mg/day); behavioral therapy – exposures	Were not reported	The patient presented improvement and the symptoms stopped
2002	Impulsive behavior in a consumer culture	Hartston, H.J. and Koran, L.M.	International Journal of Psychiatry in Clinical Practice	2 Cases (1 woman; one men)	Case study	48 years	Cognitive behavioral therapy (CBT) group with drug prescription	Were not reported	The results stand out the effectiveness of the proposed treatment
2004	Compulsive disorders	Kuzma, J.M. and Black, D.W.	Current Psychiatry Reports	1 Case (1 woman)	Estudo de caso	85 years	Cognitive therapy and SSRI.	Screening questions	Does not describe the improvement of the patient
2005	Oniomania—successful treatment with fluvoxamine and cognitive-behavioral psychotherapy	Marcinko, D. and Karlovi, D.	Psychiatria Danubina	1 Participant (1 woman)	Case study	32 years	Individual (CBT); fluvoxamine (100 mg twice a day)	YBOCS-SV <sup>b</sup> , CGI-I <sup>c</sup>	The patient presented full remission of the symptoms of the problem
2006	A compulsive buying case: a qualitative analysis by the grounded theory method.	Park, T.-Y.; Cho, S.-H. and Seo, J.H.	Contemporary Family Therapy: An International Journal	1 Participant (1 woman)	Case study	24 years	Grounded theory method – family therapy	Were not reported	At the end, the study introduced the graphical network between these categories in order to show the effectiveness of family therapy
2006	Cognitive behavioral therapy for compulsive buying disorder	Mitchell, J.E.; Burgard, M.; Faber, R.; Crosby, R.D. and de Zwaan, M.	Behaviour Research and Therapy	28 Participants (28 woman)	Clinical trial	45 years (S. D. 10.2; range 23–63)	CBT Program: 1. Treatment overview; 2. Identifying problem buying behaviors and the reasons for and against changing behavior; 3. Cues and consequences; 4. Cash management, and getting rid of credit cards; 5. Responses: thoughts, feelings and behaviors; 6. Restructuring thoughts;	CBS <sup>d</sup> , YBOCS-SV <sup>b</sup> , BDI <sup>e</sup> , Four-Week Purchasing Recall, SF-36 <sup>f</sup> .	At the end of treatment, 12 participants had complete remission of symptoms. After 6 months, 10 participants showed absence of compulsive behaviors

Table 2 (continued)

Date	Title	Authors	Journal	Sample	Study	Mean age (years) outcome	Type of interventions	Measures	Main effects
							7. Cues and chains; 8. Self-esteem ; 9. Exposure; response prevention ; 10. Stress management and problem solving ; 11. Relapse prevention and relapse plan ; 12. Summary and outlook		
2006	Compulsive buying and binge eating disorder – a case vignettes	Marcinko, D.; Bolanca, M. and Rudan, V.	Progress in Neuropsychopharmacology & Biological Psychiatry	2 Cases (2 women)	Case study	37 years	Fluvoxamine ( ± 175 mg/day) individual psychodynamic psychotherapy CBT group	Were not described	There sessions were done after 1 year follow up, enabling to establish the efficacy of treatment
2007	Comparison of treatment seeking compulsive buyers in Germany and the United States	Mueller, A.; Mitchell, J.E.; Mertens, C.; Mueller, U.; Silbermann, A.; Burgard, M. and de Zwaan, M.	Behaviour Research and Therapy	77 Participants (39 American women; 38 German women)	Clinical trial	43.7 (German); 45 (American) years		CBS <sup>d</sup> , Y-BOCS-SV <sup>b</sup> , SCID <sup>a</sup> .	The results stand out the effectiveness of the proposed treatment
2008	Compulsive buying disorder: a review and a case vignette	Tavares, H.; Lobo, D.S. S.; Fuentes, D. and Black, D.W.	Revista Brasileira de Psiquiatria	1 Participant (1 woman)	Case study	48 years	Fluoxetine 20 mg; Weekly psychodynamic psychotherapy for depression with suicidal ideation and compulsive buying.	Were not reported	Reports the case of a woman of 48 at the end of treatment, the patient was able to renegotiate your debts
2008	Cognitive behavioral treatment for impulse control disorders	Hodgins, D.C. & Peden, N.	Revista Brasileira de Psiquiatria	1 Participant (1 woman)	Case study	39 years	CBT- convert sensitization, exposure with response prevention for Kleptomania and compulsive buying	Were not described	The results stand out the effectiveness of the proposed treatment
2008	A randomized, controlled trial of group cognitive-behavioral therapy for compulsive buying disorder: post-treatment and 6-month follow-up results	Mueller, A.; Mueller, U.; Silbermann, A.; Reinecker, H.; Bleich, S.; Mitchell, J.E. & de Zwaan, M..	Journal of Clinical Psychiatry	31 participants (27 women; four men); control group – waiting list (24 women; five men)	Randomized trial	41.3 (S. D.= 10.3 years, range 20–61 years)	12 weekly sessions of CBT group and 6 month follow up	CBS <sup>d</sup> , YBOCS-SV <sup>b</sup> , GCBS <sup>g</sup> , SCL-90-R <sup>h</sup> , BIS-11 <sup>i</sup> , SI-R <sup>j</sup>	The results suggest that cognitive behavioral therapy shows great efficacy in the treatment of compulsive buying
2009	Compulsive buying: a cognitive-behavioral model.	Kellett, S. and Bolton, J.V.	Clinical Psychology & Psychotherapy	1 Participant (1 woman)	Case study	36 years	CBT	BSI <sup>k</sup> , GSI <sup>l</sup> , PSDI <sup>m</sup> , PST <sup>n</sup> , BDI-II <sup>o</sup> , CBS <sup>d</sup> , CASP <sup>p</sup> , YBOCS-SV <sup>b</sup>	The patient requested an interruption of therapy at the tenth session, as it improved the symptoms of compulsive buying
2009	Cognitive restructuring for compulsive buying	Filomensky, T.Z. and Tavares, H.	Revista Brasileira de Psiquiatria	9 Participants (8 women; one men)	Clinical trial	41.8 years	CBT group	MINI <sup>q</sup> , YBOCS-SV <sup>b</sup>	Group therapy may help patients improve cognitive and behavioral symptoms of the disorder
2010	Improving addictions treatment outcomes by empowering self and others	Wood, T.E.; Englander-Golden, P.; Golden, D.E. and Pillai, V.K.	International Journal of Mental Health Nursing	39 Participantes 26 terminaram ( nine women and 17 men)	Clinical trial	Range 18–62 years	Training Program “SAY IT STRAIGHT (SIS)”	The SIS communication/behavior skills questionnaire; 10-item rosenberg self-esteem scale (short form); the quality of life questionnaire for family (QLQ-F) and treatment group (QLQ-G)	The positive results obtained in the study suggest that the training program for disorders of impulse control, can be a powerful residential treatment

2010	Personality prototypes in individuals with compulsive buying based on the big five model	Mueller, A.; Claes, L.; Mitchell, J.E.; Wonderlich, S.A.; Crosby, R.D. and de Zwaan, M.	Behaviour Research and Therapy	68 Participants (58 women; 10 men)	Clinical trial	Cluster I=40.0 years, S.D.=10.8; cluster II=41.1 years, S.D.=10.5	CBT and waiting list group	CBS <sup>d</sup> , GCB <sup>g</sup> , SKSK <sup>r</sup> , YBOCS-SV <sup>b</sup> , NEO-FFI <sup>s</sup> , BIS-11 <sup>i</sup> , MOCI <sup>t</sup> , HOCl-S <sup>u</sup> , SI-R <sup>l</sup> , SCL-90-R <sup>h</sup> , SCID <sup>a</sup> -II and III (all in German version)	After 6 months, 14 participants in group 1 and 6 individuals in group 2 had full remission of symptoms
2011	Cognitive-behavioural group therapy versus guided self-help for compulsive buying disorder: a preliminary study	Müller, A.; Arikian, A.; Zwaan, M. & Mitchell, J.E.	Clinical Psychology and Psychotherapy	56 Participants (52 women; four men); ( <i>n</i> =22); GSH ( <i>n</i> =20); and a waiting list condition ( <i>n</i> =14)	Randomized controlled trial (10 weeks, with after the end, 6 months follow up)	45.2 years (S.D.=11.6)	CBT, guided self-help and waiting list	CBS <sup>d</sup> , YBOCS-SV <sup>b</sup> , BDI <sup>e</sup> , SCID-I <sup>a</sup>	The study suggests the effectiveness of the treatment through follow-up by telephone and through the care protocol in group CBT for compulsive buying
2011	Compulsive buying treated with motivational interviewing and imaginal desensitization	Donahue, C.B.; Odlaug, B.L. and Grant, J.E.	Annals of Clinical Psychiatry	1 Participant (1 woman)	Case study	30 years	Naltrexone (50 mg/day); Motivational interviewing, imaginal exposures, financial planning, leisure planning, and cognitive restructuring	We evaluated the debts	The patient continued to improve after 6 months at the end of treatment
2012	Behavioral addictions where to draw the lines?	Fong, T.W.; Reid, R. C. & Parhami, I.	Psychiatric Clinics of North America	1 Case (1 woman)	Case study	32 years	Behavioral strategies and self-help group	Were not described	The patient have not had full remission
2012	Pathological collecting: a case report.	Braquehais, M.D.; del Mar Valls, M.; Sher, L. and Casas, M.	International Journal on Disability and Human Development	1 Case (1 men)	Case study	53 years	Topiramate (200 mg/day); Sertraline (100 mg/day) CBT individual and group (a). personal and familial antecedents; (b). internal/external past and current triggers; (c). the act of buying itself; (d). the inability to discard objects.	Were not described	The patient was able to sell part of his collection of expensive books. Your personal debt declined and their obsessions showed improvement

<sup>a</sup> Structured *Clinical Interview* for DSM Disorders.<sup>b</sup> Yale Brown Obsessive-Compulsive Scale – Shopping Version.<sup>c</sup> The Clinical Global Impression – Improvement scale.<sup>d</sup> Compulsive Buying Scale.<sup>e</sup> Beck Depression Scale.<sup>f</sup> Outcomes Study Short-Form 36 Health Status Survey.<sup>g</sup> The German Compulsive Buying Scale.<sup>h</sup> The Symptom Checklist-90-Revised.<sup>i</sup> Barrat Impulsiveness Scale.<sup>j</sup> Saving Inventory- Revised.<sup>k</sup> Brief Symptom Inventory.<sup>l</sup> Global Severity Index.<sup>m</sup> Positive Symptom Distress Index.<sup>n</sup> Positive Symptom Total.<sup>o</sup> Beck Depression Inventory- II.<sup>p</sup> Compulsive Acquisition Scale.<sup>q</sup> Mini International Neuropsychiatric Interview.<sup>r</sup> The Screeningverfahren zur Erhebung von kompensatorischem und süchtigem Kaufverhalten.<sup>s</sup> NEO Five-Factor Inventory.<sup>t</sup> Maudsley Obsessive Compulsive Inventory.<sup>u</sup> Hamburg Obsessive-Compulsive Inventory.



Eight articles from Pubmed/Medline were part of the final review of the abstracts. Among them, a letter to the editor was included for presenting two case studies. An article on a randomized clinical trial including 56 participants and four cases study, one addressing/covering a treatment presenting the direction of the psychodynamic psychotherapy were included in our table.

Finally, in the PsycInfo database 245 articles were initially found. Among these, 39 articles associated the impulse-control disorder with Parkinson and were excluded from the analysis. Nine articles addressed the effect of the medication for compulsive buying and, at this stage, were also removed from the research. By the end, nine articles and one letter to the editor were part of the scope of our study. Nine of these articles describe case studies and one present clinical trial. Table 2 shows the results of the systematic review.

### 3.1. Case studies

In 1985, Winestine presented a clinical case, under the psychoanalytical approach, of a 30-year-old woman married to a famous millionaire, and buying outshined her feelings of humiliation and worthlessness for feeling “out of control”. The author does not mention if the patient got better through therapy (Winestine, 1985).

Krueger (1988) reported four clinical cases in order to establish that compulsive buying may be involved in attempts to regulate the “effect and the fragmented sense of self in order to restore the object of balance”, as well as the effort to fill the inner void. Only one of the four patients presented improvement of the compulsive buying symptoms. Another psychoanalysis-oriented case study (Schwartz, 1992) addresses the treatment of symptoms consistent with bulimia, kleptomania and oniomania in a 26-year-old patient monitored over the course of 10 years. There is no record on the effectiveness of the treatment.

Was presented a case study (Marcinko et al., 2006) about two women undergoing treatment for compulsive buying disorder combined with compulsive eating. Both were treated with fluvoxamine (175 mg twice a day) and psychodynamic psychotherapy. After the third week of treatment, the symptoms of the disorders were reduced. Nonetheless, there were no follow-up sessions and it was not possible to determine the effect of the treatment.

Another case study implementing the psychodynamic treatment proposal (Tavares et al., 2008) reports the case of a 48-year-old woman who presents oniomania in comorbidity with depression and suicidal ideas. All throughout her therapy, the patient did not present any compulsive behavior related to buying. After the tenth session, depressive symptoms were increased and adherence to medication was necessary. Upon treatment completion, the patient was able to renegotiate her debts.

Regarding other therapeutic approaches, the study (Park et al., 2006) uses the software “Atlas.ti” in a proposal for treating a 24-year-old patient under the family therapy approach. Therapy was performed between 2001 and 2004, in Korea. In this case, 121 open codes and seven axis categories were produced, including the following categories: (1) issues regarding communication with friends or family, (2) relationships with siblings, (3) parental style, (4) interpersonal relationships, (5) mother's communication style, (6) stress, (7) compulsive buying and the use of credit card. In the end, the study presented the graphical network between these categories in order to show the effectiveness of family therapy.

Six case studies reported the use of cognitive-behavioral therapy (CBT) as a clinical treatment bias. Were presented two cases of pathological collecting in comorbidity with compulsive buying different from the period of mania of the bipolar mood disorder (Hartston and Koran, 2002). Patients were submitted to therapeutic treatment in association with adherence to medication

and the results achieved highlight the effectiveness of CBT. The study (Marcinko and Karlovi, 2005) presents the clinical case of a 32-year-old woman who developed compulsive buying after ending a romantic relationship. After 1 year undergoing CBT therapeutic treatment and fluvoxamine, 100 mg twice a day, the patient was evaluated by the Yale Brown Obsessive Compulsive Scale – Shopping Version (YBOCS – SV) and the Clinical Global Impressions-Improvement (CGI-I) presented a significant improvement of the symptoms of oniomania.

A study aiming at treating impulse-control disorders, kleptomania, pathological gambling and compulsive buying was carried out (Hodgins and Peden, 2008). From the description of cognitive-behavioral techniques as: psychoeducation, cognitive restructuring, behavioral interventions (covert sensitization, exposure and response prevention, stress management) assertiveness training. They pointed out the case of a 39-year-old patient. The combination of techniques presents an effective intervention model for these disorders.

Based on the cognitive-behavioral model of the compulsive patient, were plan a case directed by the CBT approach (Kellert and Bolton, 2009). Throughout 14 meetings, 50 min each, the patient, a 36-year-old woman, noticed an improvement on reducing the symptoms of the disorder. In their study Donahue et al. (2011) have presented a clinical case of a patient helped by some CBT techniques. Her treatment only used imaginative desensitization and motivational interviewing in association with adherence to medication, naltrexone 90 mg/day. Six months later the patient maintained the benefits of the therapy. The Motivational interviewing allows the patient to develop intrinsic motivation for behavior change, from a series of policy questions in an attempt to overcome and reduce ambivalence. Through imaginal desensitization the patient learns to confront and control their impulsive behaviors through images or imagined situations. Thus, from the gradual exposure, he/she learns to modify their behavior, being exposed to the compulsive buying situation through a mental picture.

Two articles cover the effectiveness of behavioral therapy and the study of three clinical cases. Were presented clinical cases of compulsive buyers that are treated with clomipramine (150 mg/day) because they also have panic episodes (Bernik et al., 1996). In both cases, behavioral therapy was suggested. They utilized the exposure with response prevention. On the second article Fong et al. (2012) were discussed the case of a 32-year-old woman who had a history of borderline personality disorder presenting depressive symptoms and generalized anxiety. The patient also presents diagnosis consistent with excessive buying. After 12 weeks, through behavioral strategies and encouraging the patient to participate in support groups “debtors anonymous”, she declared that she felt better. In the first study, researchers declare success on treatment based on behavioral therapy.

On the other hand, the study (Kuzma and Black, 2004) assesses the effectiveness of cognitive therapy upon assessment of the clinical case of an 85-year-old patient with obsessive-compulsive disorder and compulsion for buying. She was medicated with paroxetine and has undergone treatment with cognitive psychotherapy. There are no substantial reports on the patient's recovery.

Finally (Braquehais et al., 2012) demonstrated the effectiveness of the combination of cognitive behavioral therapy and pharmacological treatment (sertraline, topiramate). E.M. is a man, married 53 years, addicted to alcohol, had diabetes mellitus and essential tremor. Usually collect books and arts. Arrived to spend US\$7000/month in books. Characteristics of obsessive-compulsive personality disorder were observed. The individual cognitive-behavioral therapy was developed to supply the emotional, cognitive, and identification of factors related to the compulsion to collect and purchase: (a) personal and family history, (b) past triggers,

internal/external and current triggers, (c) the act of buying itself, and finally, (d) inability to reject objects. At the end of the treatment, the patient managed to undo if your collection of books, talk to your wife about your financial situation and their debts reduced. Maintained outpatient counseling and pharmacological treatment.

### 3.2. Clinical trials

The first trial described in the literature on compulsive buying disorder was conducted (McElroy et al., 1994) and describes the intervention for 20 patients diagnosed with this disorder, with the use of medications such as antidepressants, mood stabilizers, anxiolytics and antipsychotics. Two out of the twenty patients have benefited from support psychotherapy and aid groups combined with drug therapy. Twenty two percent of the patients that had undergone treatment achieved the improvement of onomania symptoms. Despite being the first clinical trial, not standardized screening scales to assess the severity of the disorder.

From a pilot-study, a protocol structured on 12 sessions over a period of 10 weeks, where 28 individuals were part of the active treatment for compulsive buying under the cognitive-behavioral therapy approach was suggested (Mitchell et al., 2006). Thus, they assessed the level of therapeutic effectiveness with scores of the Compulsive Buying Scale (CBS), Yale–Brown Obsessive Compulsive Scale–Shopping Version (Y–BOCS–SV), Beck Depression Inventory (BDI), Four-Week Purchasing Recall, Outcomes Study Short-Form 36 Health Status Survey (SF-36).

The authors described the structure protocol by using CBT techniques as follows: the first part of the treatment was directed towards psycho-education, explanation of the treatment model and identification of compulsive buying behaviors, and commitment to behavioral change. In a second step, patients were instructed to manage their money or savings and on how to “get rid of” credit cards. The third step applied the cognitive model of compulsive buying and cognitive restructuring, as well as predisposing factors and maintaining factors of the disorder. In the fourth step, patients were encouraged to the behavioral practices of the therapy, such as exposure with response prevention, stress management and problem solving. Finally, therapy stimulates the prevention of relapsing and perspectives regarding the future. Upon completion of the treatment, 12 participants reported complete remission of the responses along the last 4 weeks, with no compulsive buying episodes. When conducting follow-up sessions 6 months after the completion of the group treatment, 10 participants reported total abstinence of the compulsive buying behavior. The authors point out that the results achieved in the pilot study suggest that the effectiveness of the treatment with cognitive-behavioral therapy has a significant impact on the compulsive buying behavior, as well as on the remission of symptoms.

In this pilot study, upon using the protocol Mitchell et al. (2006) and Mueller et al. (2007) compared two clinical samples on treatment for compulsive buying. Thirty eight German participants and 39 American women, compulsive buyers, evaluated and identified using the YBOCS-SV and CBS scales. Almost all of the participants met the criteria for at least one Axis I disorder, but the German group presented greater predisposition to develop any anxiety disorder and its prevalence than the American group. The groups did not differ in age and with regard to the severity of the compulsive buying. However, the German sample presented greater co-morbid conditions with compulsive buying compared to the American sample. These same authors also emphasized the importance of managing credit cards, indicating that the use of cash tends to reduce excessive spending. In another randomized clinical trial Mueller et al. (2008) were compared the effectiveness

of the cognitive-behavioral group therapy based on a cognitive behavioral group protocol (Mitchell et al., 2006) for treating the compulsive buying disorder with the control group (waiting list). Thirty one participants met the diagnostic criteria (McElroy et al., 1991), and were referred to receive the active treatment in 12 weekly sessions. By the end of the treatment, they have initiated follow-up sessions after 6 months. The protocol seeks to suspend and to manage the compulsion for purchases, establishing new and healthier patterns, identifying and restructuring the deregulated and maladaptive thoughts and feelings related to purchase. Through the development of coping skills and healthy communication patterns, it implements relapse prevention techniques. In addition, the manual includes sessions on self-esteem, stress reduction and problem-solving. Techniques used consisted of exposure and response prevention, practicing and developing coping skills concerning healthy buying habits, among others. Scales for detecting and measuring the disorder were: CBS, YBOCS-SV, the German version of the CBS, Barratt impulsiveness scale (BIS-11). Multivariate analysis revealed significant differences between the control and intervention group. The results achieved suggest that the cognitive-behavioral therapy presents great effectiveness in treating compulsive buying.

The clinical trial exposing a pilot group for the treatment of compulsive buying, emphasizing cognitive restructuring was published (Filomensky and Tavares, 2009). The group included the participation of nine individuals, mean 41.8 years age. At the end, the group therapy benefited patients to detect cognitive distortions, helping them to better cope with the thoughts and compulsive behaviors associated with the purchase. At the first session in their protocol, a psychoeducation of the disorder was introduced in an attempt to promote greater understanding of the problem and commitment to therapy. Then, cognitive restructuring was used to modify maladaptive patterns of thoughts and feelings about the compulsion to shop. The patients were encouraged to negotiate their debts and develop new coping skills about buying. Finally, in the last therapy sessions, problem solving and relapse prevention techniques were performed.

In 2010, a clinical trial on a coaching program, “SAY IT STRAIGHT (SIS)”, was published. It was developed (Wood et al., 2010) as an experimental training proposal for addictions. This research was aimed at introducing and increasing motivation, working on cognitive-behavioral coping skills, social support and group cohesion. It was conducted for long-term residential treatment and intervention. This additional coaching is co-created by the participants, who chose important challenging situations in their lives and are instructed to experience them, from the perspective of the coaching. During the 5-week period consisting of two weekly meetings, 26 out of the 39 individuals (9 women and 17 were men) invited to participate in the research completed the entire training. The positive results achieved in the study suggest that the coaching program for impulse-control disorders may be a powerful residential treatment.

The study (Mueller et al., 2010) intended to establish an association between the big five personality factors model in a treatment sample of 68 individuals with compulsive buying disorders. The analyses of the “NEO Five Factor Inventory” (NEO-FFI) scales originated two distinctive personality groups. Group 1 consisting of individuals presenting lack of emotional control and emotional dysregulation; and group 2 consisting of individuals apparently resilient and with high functioning pattern. An important goal of the study was to investigate the possible impact of the personality and level of response to the treatment. By the end, only 25 individuals were part of the intervention group, undergoing cognitive-behavioral therapy, and 24 were part of the control group. CBS and German CBS scales were used to measure the compulsive buying behavior. Group treatment was carried out

in 12 weekly sessions, 90 min each. Upon conclusion, 13 participants in personality group 1 and 7 participants in personality group 2 reported remission of compulsive buying symptoms. After 6 months, 14 participants in group 1 and 6 individuals in group 2 presented complete remission of symptoms.

Finally, based on a randomized clinical trial on treating compulsive buying disorder (Müller et al., 2011) a comparison was made between the samples of individuals who have received cognitive-behavioral therapy (CBT) or instructions for self-help over the phone and control group. The treatment was undertaken over a period of 10 weeks, with follow-up sessions 6 months after the end of the treatment. Ten participants have abandoned the trial before interventions had started. Twenty two individuals were part of the intervention group and 14 remained on the waiting list. The scales used were CBS, YBOCS-SV. Upon treatment completion, there was a reduction of the scores of intervention groups in scales YBOCS-SV and CBS, while there was no change in the scores of the control group. The study suggests that the effectiveness in the treatment with supervision over the phone and by the group appointments protocol using CBT for compulsive buying.

#### 4. Discussion

From the literature review it was possible to identify that there is no standard approach for treating compulsive buying disorder. Recommendations for treatment are largely caused by the therapeutic approach and guidance, under the theoretical contribution, and considerations on the level of effectiveness remain largely governed in their empirical implications.

The case studies reported treatments of clinical guidelines in psychoanalysis, family therapy, behavioral therapy, cognitive therapy, cognitive-behavioral therapy and a case with no specification on the type of theoretical approach. No symptoms of the disorder were determined or measured in any of the cases conducted under the psychodynamic approach. Three out of the nine patients reported that their illness scenario was improved. None of them presented complete remission of the symptoms of the disorder. "Atlas.Ti" (Park et al., 2006) was the program used in the theoretical guidance study in family clinic. They evaluated the symptoms and problems associated to the disorder by carrying out clinical anamnesis with the patient and his family, meeting the necessary criteria for preparing the material of the program's database. The case study presented no reports on the effectiveness of the treatment proposal applied. However, it was possible to identify the key predisposing and maintaining factors of the compulsive buying addiction.

In behavioral therapy and cognitive guidance cases, all four patients presented substantial improvement of compulsive buying symptoms. In both cases, the problem was determined and measured using scales for tracking the disorder.

The optimal therapy for treating compulsive buying is cognitive-behavioral therapy (Black, 2007). Although there is no evidence on the effectiveness of the treatment, the case studies on this approach direct its success. This premise favors the results found in the five case studies of our research. Cognitive behavioral therapy for presenting structure and treatment protocol, enabling monitoring of sessions and provide resources for assessment and diagnosis, enabled to observe their therapeutic efficacy. The studies found in this article allow us to assess its success in treatment for compulsive buying, as well as some of the main techniques used.

All clinical trials carried out followed the directions of CBT's theoretical assumptions. There was no difference in effectiveness between individual and group therapy. Phone sessions also

presented success, when guided by CBT. The protocol structured on 12 weekly sessions had the greatest level of effectiveness.

It was possible to observe that in case studies, the report of clinical case was prioritized, in detriment to clinical techniques and clinical contributions that could clarify with greater vigor scientific, the remission of the symptoms described.

The treatment was specifically intended to cease and control the main problems of the compulsive buying behavior, establishing new healthy buying patterns, restructuring non structured thoughts and negative feelings associated to buying, strengthening and encouraging the patient to establish new coping skills. *Follow-up* sessions seem to present differences on improvement after the six months, by the end of the treatment.

Another important factor relates to medication adherence. Eight studies point to the use of combined therapeutic treatment drugs, producing improvement in cognitive and behavioral symptoms associated with compulsive buying.

To observe the relevance and need for adherence and prescription, it is necessary to extend the investigation in the field of psychoactive drugs indicated for treatment of compulsive buying.

Based on literature review, it was possible to identify the predominance of clinical case studies on oniomania, in detriment of clinical trials that were found in this research database. While there is little consensus on treatment proposals, individual and group psychotherapy, under the cognitive-behavioral therapy approach, seems to be the most effective.

By the utilization of the protocol developed in the United States, other countries, such as Germany analyze the success, adaptation and response to the treatment protocol of cognitive-behavioral therapy. It is necessary that new research groups are able to replicate these studies in order to increase the level of effectiveness and knowledge of the disease in different populations.

It was not possible to establish or define the main techniques used in the psychodynamic approach, since they have not been described or reported in their case studies. This seems to be a gap on their effectiveness, since controlled studies in this approach have not been found, there is no way to measure the power of accuracy on the treatment of compulsive buying.

A crucial factor, relates to how the authors described their studies. In the present analysis, it was possible to verify that the results obtained, as well as in the discussions, was not described by the material collected and scores obtained, the therapeutic efficacy. This seems to be a lapse in the field of clinical psychology, which, nevertheless, we can find reports and brief descriptions in other similar to those that were analyzed in this study.

Thus, it has been shown that the compulsive buying disorder is generalized and it seems that prevalence is ever-increasing. It is both an apparently innocent behavior and a pathological one, therefore a lot of people are estimated to be affected, especially those who experience life immerse in our consumer society, and also because they are always involved in an intimate relationship with money, possessions and pleasure. There is no diagnostic classification, therefore new studies are necessary to broaden understanding, in a more effective manner, of the neurobiological and psychological mechanisms, and descriptive characteristics and comorbidities on this disorder. Health professionals need to be able to expand new researches on the problem in all of their activities, enabling the development of more specific and effective therapies.

#### 5. Conclusion

From our findings, the use of various techniques of cognitive-behavioral therapy were observed. Thus, we developed a manual consisting of 12 sessions for the treatment of purchase, tailored to



key techniques used and effective, according to our research (Mitchell et al., 2006).

These sessions include:

1. Treatment overview and introducing the cognitive-behavioral model.
2. Identifying buying problem behaviors / learn to identify the normal buying.
3. Pros and cons of compulsive buying.
4. Cash management, and getting rid of credit cards (financial planning – “freezing your cards”).
5. Responses: thoughts, feelings and behaviors (The “pleasure of buying” behavior).
6. Emotional regulation of impulsive feelings.
7. Restructuring thoughts.
8. Exposure; response prevention (collaboration of co-therapist).
9. Self-esteem.
10. Training in social skills.
11. Stress management and problem solving.
12. Relapse prevention and relapse plan.

We have included four techniques used in our research, all of which presented good therapeutic adherence, as instructing the patient to freeze their credit card in order to wait for it to thaw, providing inoculation of their anxiety. Another intervention that we use refers to emotional regulation, for understanding and expressing their emotions, as well as training in social skills. We also believe in the need to support co-therapists for improvement and adherence to scheduled exhibitions.

## Conflict of interest

None of the authors has conflicts of interest.

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