

## Compulsive Buying

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**Objective:** Although compulsive buying (CB) seems to be not only prevalent but even increasing in prevalence, it often remains neglected or minimized in clinical settings. There is a need for a greater understanding and recognition of this problem. The aim of this article is to summarize the current knowledge regarding CB and to offer thoughts regarding classification.

**Method:** Review of published literature over the period 1994–2013 through Pubmed/Medline, PsychINFO, and Google Scholar using the key words ‘compulsive buying’, ‘impulsive buying’ and ‘addictive buying’.

**Results:** CB is defined by a preoccupation with buying and shopping, by frequent buying episodes, or overpowering urges to buy that are experienced as irresistible and senseless. The maladaptive spending behavior is associated with serious psychological, social, occupational, and financial problems. Treatment-seeking patients with CB suffer from substantial psychiatric comorbidity (eg, anxiety and depressive mood disorders, compulsive hoarding, binge eating disorder). Representative surveys revealed prevalence estimates of CB between 6% and 7% and indicate that younger people are more prone to develop CB. Moreover, European data suggest an increase of CB in the adult population over the last 20 years. While there is no evidence for the efficacy of psychopharmacological treatment, group cognitive behavioral therapy has been shown to be effective.

**Conclusion:** The relevance of recognition of CB as mental disorder is undeniable in the face of its estimated prevalence and associated burden. As our understanding of contributing neurobiological and etiological factors is limited, further research should focus on these topics, taking into account the heterogeneity of individuals with CB. There is also a need for specific treatment options and for the development of prevention strategies. (*Am J Addict* 2015;24:132–137)

ers and psychiatrist became interested in the topic. While research on CB is growing, there is still a need for a greater understanding and recognition of this problem. Although CB seems to be not only prevalent but even increasing in prevalence, especially among younger individuals, it often remains neglected or minimized in clinical settings. The lack of recognition might be due to the relatively sparse literature on this topic and the lack of consensus regarding the classification of CB as a mental disorder. Therefore, this article aims to summarize the current knowledge regarding CB and to offer some thoughts about classification.

### PHENOMENOLOGY

CB is defined by a preoccupation with buying and shopping, by frequent buying episodes, or overpowering urges to buy that are experienced as irresistible and senseless.<sup>2</sup> The shopping and buying episodes are accompanied by relief and pleasure, but followed by remorse and guilt due to the inappropriateness of the spending behavior and its negative consequences. According to reports by patients with CB, they rarely or never use the bought items. These people are primarily interested in the process of shopping, browsing, choosing, and ordering but not in the use of the goods. For many of them, shopping is a way to manage or enhance poor sense of self and negative mood states. Many people with CB prefer to buy via internet, TV, or in anonymous malls. Others enjoy getting complements from salespersons and having “expert discussions” with them, and therefore prefer more exclusive stores. Some individuals with CB do not buy for themselves but purchase primarily presents for their relatives or friends. A sub-group compulsively hoard the items they have bought. The urges to buy and the maladaptive spending behaviors lead to personal distress and interfere with social, marital, or occupational functioning.<sup>2</sup> Frequent negative consequences further include financial problems, often significant indebtedness, and occasionally unlawful behavior.<sup>3,4</sup> Individuals with CB are ashamed of their spending behavior, and the associated lying and interpersonal conflicts.

### INTRODUCTION

Compulsive buying (CB) has long been recognized as a problem, and was actually described more than 100 years ago as “oniomania” by Kraepelin.<sup>1</sup> Much later consumer research-

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In treatment-seeking samples, patients indicated the onset of CB between the early twenties<sup>3,5</sup> and 30 years.<sup>2,6,7</sup> Usually, the realization of CB problems occur much later, secondary to the development of large debts, legal problems, hoarding of the purchased items, conflicts with family members, and other adverse psychosocial consequences of the inappropriate spending behavior.<sup>5</sup> The examination of treatment-seeking individuals suggests a chronic course of CB, with fluctuations in severity.<sup>2,4</sup>

## COMORBIDITY

Typically, patients with CB are affected by other psychiatric disorders. Interview-based data from 171 treatment-seeking individuals with CB showed that almost 90% reported at least one lifetime Axis I diagnosis.<sup>8</sup>

Anxiety disorders and depressive mood disorders seem to be the most frequent comorbid conditions among treatment seeking individuals, with lifetime rates of about 60% and above.<sup>5,8</sup> Many individuals with CB—about half in clinical samples—also suffer from compulsive hoarding.<sup>9</sup> Some studies found substance abuse<sup>3,5</sup> and binge eating disorder<sup>5</sup> to be prevalent among patients with CB. Moreover, other impulse control disorders seem to be common, particularly intermittent explosive disorder and pathological gambling.<sup>3,5</sup> Previous research further indicates that 60% and more of treatment-seeking individuals with CB suffer from a personality disorder, most frequently avoidant, depressive, obsessive-compulsive, and borderline personality disorder.<sup>3</sup>

CB problems also seem to be common among patients with other psychiatric disorders. For example, 7–9% of consecutive psychiatric inpatients had a lifetime diagnosis of CB based on clinical interviews.<sup>10,11</sup> CB was also found to be prevalent in patients with OCD and compulsive hoarding.<sup>12</sup> In terms of eating disorders, an association between CB and bulimic eating disorders has been reported.<sup>13</sup> Morbidly obese individuals with regular binge eating present with high prevalence rates of CB of 12%.<sup>14</sup>

With regard to other behavioral addictions, previous studies indicate an overlap between CB problems and pathological internet use,<sup>15</sup> exercise dependence,<sup>16</sup> and pathological gambling.<sup>17</sup> Recently, a significant association between CB and self-reported alcohol and drug problems was reported in consecutive female patients who were seen at an obstetrics/gynecology outpatient clinic.<sup>18</sup>

Further, clinicians should be aware that CB as well as other behavioral addictions such as pathological gambling or hypersexual behavior may develop *de novo* or worsen when patients receive dopamine agonist treatment in patients with Parkinson's disease or restless legs syndrome.<sup>19</sup>

## ASSESSMENT

Of note, no formal diagnostic criteria have been accepted for the diagnostic manual of the American Psychiatric Association, nor in the International Classification of Diseases (ICD-10).

CB should be assessed by detailed face-to-face interview exploring buying attitudes, associated feelings, underlying thoughts, and the extent of preoccupation with buying and shopping. The inappropriate CB episodes should be differentiated from excessive buying in the context of a bipolar disorder. CB should not be diagnosed if it occurs exclusively during episodes of mania or hypomania<sup>2</sup>; thus it is necessary to ask individuals about possible manic symptoms during the course of a clinical interview.

In addition, several self-ratings and structured interviews have been developed that may be used to diagnose the problem; however, they cannot replace a detailed clinical evaluation. The most widely used screening instrument for CB is the Compulsive Buying Scale (CBS).<sup>20</sup> The CBS consists of seven items that reflect typical aspects of CB such as lack of impulse control, distress at the thought of others' knowledge of the person's spending pattern, irrational use of credit cards, tension when not shopping, and the use of shopping and buying to feel better. Faber and O'Guinn<sup>20</sup> created a scoring system involving a regression equation with item weighting to determine the cut-off score (−1.34) for CB. Lower scores indicate a higher level of CB.

There are several other screening instruments for CB. For example, Ridgway et al.<sup>21</sup> developed a 6-item scale that is based on the understanding of CB as having both obsessive-compulsive and impulse control disorder features, ignoring the resultant effects of the spending behavior (eg, financial problems). European national representative surveys (see below) used an adapted and modified version of the CBS of D'Astous.<sup>22</sup>

To assess severity and clinical change of CB, the Yale-Brown Obsessive Compulsive Scale-Shopping Version (Y-BOCS-SV)<sup>23</sup> is recommended. The YBOCS-SV explores thoughts and behaviors associated with buying episodes, resistance to them, interference due to preoccupation with buying, and the degree of control over the shopping and buying cognitions and behaviors.

Other diagnostic tools are the proposed impulse control disorders section of the Structured Clinical Interview (SCID) that provides a number of questions for CB<sup>24</sup> and the Minnesota Impulsive Disorders Interview (MIDI)<sup>5</sup> that explores CB among other impulse controls disorders.

## EPIDEMIOLOGY

Using the CBS, representative surveys in the United States ( $N = 2,513$ )<sup>25</sup> and Germany ( $N = 2,350$ )<sup>26</sup> revealed prevalence estimates of CB in adults between 6% and 7%. Other European data suggest an increase of CB in the adult population over the last 20 years.<sup>27</sup> With regard to adolescents, 11% of 2,853 high school students in Southern Italy reported CB scores in the pathological range.<sup>28</sup> It is known that age is inversely correlated with CB indicating younger people are more prone to manifest CB.<sup>25–27</sup> In the U.S. survey,<sup>25</sup> CB was related to lower income, which was not the case in the European population-based studies.<sup>26,27</sup>

With respect to possible gender effects, different surveys revealed different results with some suggesting that women are affected more often than men,<sup>27</sup> whereas others did not find this.<sup>25,26</sup> Clinical practice, however, shows that the vast majority of patients in treatment seeking samples for CB are women.

## ETIOLOGY

### Neurobiological Factors

Knudson et al.<sup>29</sup> investigated neural correlates of purchasing in 26 healthy consumers by using functional Magnetic Resonance Imaging (fMRI) while performing purchasing decisions. Their findings demonstrated that the purchase of products was associated with an increased activity in the nucleus accumbens and the mesial prefrontal cortex. The insula was activated prior to the purchasing decision indicating that it might play an important role in the process of deciding to buy or not to buy a product.

The only event-related fMRI study in treatment-seeking individuals with CB indicated differences between patients with CB ( $N = 23$ ) and healthy consumers ( $N = 26$ ) with regard to brain activity in regions known to be involved in decision making.<sup>30</sup> This study found a greater nucleus accumbens activity during product presentation in women with CB compared to those without and lower insula activation during the presentation of prices for the products the CB women decided to purchase. The authors concluded that the anticipated loss of money did lead to a stronger negative emotional response in healthy controls than in the individuals with CB.

Other considerations concern an imbalance in the serotonergic, dopaminergic, or opioid regulatory systems in individuals with CB. To date, these assumptions could not be supported by controlled medication studies.<sup>31</sup> Also, the only genetic study did not find differences relating to genetic variations of the serotonin transporter (5-HTT) between individuals with CB and healthy controls.<sup>32</sup>

### Psychological Factors

While shopping sprees initially entail primarily positive reinforcement, later on CB episodes mainly hold negative reinforcing properties and are used to escape from negative feelings such as anxiety, depression, tension, or boredom.<sup>33,34</sup> CB can also be perceived as chronic and repetitive failure in self-regulation.<sup>35,36</sup> There is typically an association with high levels of impulsivity in individuals with CB leading to loss of control over spending.<sup>37</sup> Moreover, material values endorsement, depression, low self-esteem, perfectionism, decision-making difficulties and narcissism have been shown to be related to CB.<sup>38–40</sup>

Empirical evidence suggests that those with CB represent a heterogeneous group. The findings of several investigations indicate disparate clusters with unique dispositional tendencies and maintaining psychological factors that lead to CB.<sup>8,41,42</sup> Most studies identified a first, more severe, CB cluster with

high psychiatric comorbidity and primarily negative reinforcement as a motive for buying, while the second cluster mostly related more to a positive reinforcement motive to buy, and included individuals with lower psychopathology.

### Social Factors

Social and environmental factors should not be underestimated in the development of CB. Consumerism, marketing stimuli, commercials, advertising, shopping malls, and credit offers, as well as other factors may contribute to CB. This is why some researchers warn that some of the current thinking represents the medicalization of inappropriate buying.<sup>43</sup>

As mentioned, individuals with CB represent a rather heterogeneous group. Using a bio-psycho-social model, several of the aforementioned potential etiological factors may be linked to CB. However, as most studies were of a cross-sectional nature, the direction of the associations remains unclear.

## TREATMENT

No psychopharmacological treatment of CB has been shown effective in double-blind, placebo-controlled trials.<sup>31</sup> Group cognitive-behavioral therapy (CBT) appears helpful in interrupting excessive buying, restructuring maladaptive thoughts associated with shopping and establishing healthy purchasing patterns.<sup>4,6,7</sup> Guided self-help also may be a helpful intervention for some in reducing CB.<sup>7</sup>

### Psychotherapy

With regard to psychotherapy, CBT has been the best researched approach. Group CBT has been shown to be effective in three controlled psychotherapy studies that compared the efficacy of group psychotherapy with a waiting list control condition.<sup>4,6,7</sup> The treatment rationale given to the patients is that repetitive failure in self-regulation, low self-esteem, depressed mood and negative reinforcement processes may cause inappropriate buying habits. The treatment includes sessions addressing motivation, stimulus control techniques, development of alternative behaviors, cognitive restructuring as well as exposure and response prevention techniques. Additional modules target money management deficits, underlying material values endorsement, stress management, and problem-solving. In all three published studies, the improvement of CB was maintained at 6-month follow-ups.<sup>4,6,7</sup> The third study included an additional telephone-guided self-help arm. Participants in this condition tended to better more than those in the waiting list control group, but were significantly less successful than participants in the group CBT.<sup>7</sup>

### Psychopharmacology

Due to the overlap between CB, anxiety and mood disorders, selective serotonin reuptake inhibitors (SSRIs) might be around to be effective in the treatment of CB. Although some patients with CB appear to benefit from SSRIs,

most placebo-controlled trials have failed to show superiority for the active medication.<sup>31</sup> In addition, the few medication trials conducted thus far have been limited by small sample sizes and high placebo response rates.

Given that dopaminergic reward pathways may play a role in CB, the application of opioid antagonists theoretically could reduce buying urges. However, despite some promising case reports with naltrexone,<sup>44</sup> no controlled trials have been performed so far.

Another consideration pertains to NMDA receptor antagonists that may reduce glutamate excitability and, hence, decrease impulsive behavior. Results of a smaller preliminary open-label trial with memantine indeed suggest reduction in frequency of CB behaviors.<sup>45</sup>

## COMPULSIVE BUYING IN CONSUMER AND PSYCHIATRY RESEARCH

CB is a topic of interest not only for psychiatrists and clinical psychologists but also for consumer researchers. However, a synthesis of the two approaches has been elusive. This might be explained by different methodologies utilized in CB research, in particular the medical and the social science perspectives. The medical perspective tends to categorize individuals as suffering or not suffering from CB disorder, and views CB not just as an extreme form of normal buying but rather as a distinct disorder. On the contrary, the social science approach tends to consider CB as being on a continuum. Although studies from consumer or psychiatry research may use either of these perspectives, it appears that the comparison between treatment-seeking patients with CB and normal buyers indicate differences more typical for psychiatric disorders,<sup>5</sup> whereas the majority of consumer research has preferred the social science approach examining undergraduate students or consumers, evaluating them along a continuum of CB-like behaviors.<sup>38,41,42</sup>

Another concern regards the delineation between CB and impulsive buying. The latter refers to spontaneously, immediately loss-of-control buying that occasionally occurs in ordinary consumers when their desire for a specific item outweighs their willpower to resist it. Impulsive buying is mostly externally driven (eg, commercials, retail environmental cues).<sup>41,42</sup> Individuals with CB are extremely preoccupied by thoughts about shopping. Their inappropriate buying behavior is driven by internal needs and characterized by repetitive inappropriate spending patterns that interfere with social, work, or role functioning.<sup>2,3,5</sup> Nevertheless, external cues that trigger impulsive buying may also contribute to CB episodes.

It is also noteworthy that most CB questionnaires were developed by consumer researchers and contain items concerning impulsive buying.<sup>20–22</sup> However, some of those were developed solely on the basis of interviews with those self-identified as having CB and the psychiatric literature on impulse control disorders (eg, the CBS).<sup>20</sup> While CB

questionnaires in general may help to distinguish those with CB from other consumers, the diagnosis of CB requires a more detailed face-to-face exploration, as we have mentioned earlier.

## CONSIDERATIONS ON CLASSIFICATION

The importance to find a meaningful way to categorize CB is clear, given its estimated prevalence and associated burden. The classification of CB as mental disorder can serve to prevent clinicians from overlooking and trivializing of this problem. Moreover, it can contribute to research and extend disorder-specific treatment options for individuals with CB. The question as to how CB should best be classified remains unresolved and several considerations are currently under debate.

Given the phenomenology, CB does not fit well into the category of obsessive-compulsive related disorders. The buying cognitions are not ego-dystonic, and the CB behaviors usually not nearly as ritualized as those of patients with an obsessive-compulsive disorder. Therefore, the term “compulsive buying” is misleading.

Given some commonalities with substance use disorders, CB could be categorized as a non-substance (behavioral) addiction. If the criteria of craving, loss of control, and perpetuation of behavior despite negative consequences are considered as sufficient for the diagnosis of an addiction, this could be an appropriate classification. The overpowering urge to buy, the repetitive loss of control over spending, and the discomfort when not shopping or buying indeed resemble craving and withdrawal symptoms in substance addictions. Another analogy regards the role of positive reinforcement processes at the beginning of CB and the increasing importance of negative reinforcement in the long term. As opposed to pathological gambling, which is considered a behavioral addiction in the DSM-5, genetic and neurobiological similarities between CB and substance addictions have not been confirmed, perhaps primarily due to the lack of research in this field. Apart from these considerations, at least according to reports by patients we have assessed or treated, those with CB seem to experience less intense buying “rushes” compared to those with substance abuse problems. Moreover, CB does not appear to cause central nervous system damage.

Extreme preoccupation with shopping and buying, high impulsivity and lack of control over shopping are the key features of CB. As CB can be viewed as a repetitive failure to resist an impulse to perform an act that is harmful to the person or to others, it seems best classified as an impulse control disorder.

As mentioned above, the label “compulsive buying” is misleading and the term “impulsive buying” has been used for many years in consumer research for externally triggered buying sprees. As CB is qualitatively different from impulsive buying, the latter term also appears inadequate for the phenomenon described in this article. In our opinion, the word “pathological buying” seems to be most suitable, given

the inappropriateness of the buying behavior and the serious psychological, social, occupational and financial problems that are linked to it.

Our understanding of neurobiological and etiological factors regarding CB is limited. Hence, further research should focus on these topics taking into account the heterogeneity of individuals with CB. This could help in determining the appropriate classification of CB. Also, there is a need for specific treatment options which takes into consideration comorbid disorders (eg, depression, compulsive hoarding). Last but not least, given the ease of obtained consumer credit, the growing product availability via the internet, and the particular high occurrence in younger people, research should aim at developing and evaluating prevention strategies.

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### Declaration of Interest

The authors report no conflicts of interest.

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