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Abstract

Buying-shopping disorder (BSD) is considered a behavioral addiction that is characterized by poorly controlled spending of money for consumer goods in unnecessary quantities, beyond budget and without necessarily utilizing them for their intended purposes. Little is known about the role of emotional attachment to the purchased products in BSD. Given the relative lack of empirical data on object attachment in relation to BSD, this narrative review relies on patients' reports and studies concerning erroneous beliefs about possessions and the influence of materialism, identity problems and narcissistic deficits on symptom severity of BSD. The findings indicate that BSD is mainly driven by materialistic values endorsement and the desire to regulate negative feelings, poor self-esteem and identity confusion via purchasing material goods.

1. Introduction

Buying-shopping disorder (BSD) refers to poorly controlled spending of money for consumer goods in unnecessary quantities, beyond budget and without necessarily utilizing them for their intended purposes [1,2]. Some individuals with BSD may not buy but shop excessively without purchasing anything (e.g., browsing shopping websites). The dysfunctional buying-shopping behavior is mainly driven by an intense, compelling desire to instantly own a specific product. In the early stages of BSD, buying and shopping are associated with pleasure and other positive feelings. Later on, buying-shopping episodes are used more and more to obtain relief from negative mood states [3]. Preoccupations with and cravings for buying and excessive spending have been linked to adverse psychosocial outcomes such as significant clinical distress, strained relationships, accumulation of debts and impairment in important areas of functioning [1,2,4]. Representative surveys suggest that BSD is a common mental health condition with an estimated prevalence rate of about 5%, with women and younger age groups being more often affected than men [5,6]. The following case example illustrates the main features of BSD.

Case example 1

> Peter is a 22-year-old university student. When he is confronted with advertisements or has any money available, he feels an intense, compelling desire to instantly buy anything. He browses shopping websites several times daily and buys things that are not needed or way beyond his budget. Peter loves consumer goods that signal status. He believes that his life would be better if he could buy more luxury things. In the beginning, he experienced shopping as pure pleasure. Meanwhile, purchasing material goods helps him to deal with personal uncertainties, and with negative feelings and thoughts. Many of the purchased things he had never used, but instead given away as gifts, sold at internet auctions or thrown in the garbage. Arguments are frequent between Peter and his parents because he hides his purchases and lies to his family about his finances.

Case example 2

> Anne is a single 50-year-old woman who works fulltime as a secretary. She cannot stop thinking about shopping and has accumulated huge debts due to excessively spending money on clothes. When she fantasizes about her look in a new dress and how her colleagues will admire her for her style, she cannot resist the temptation to buy the dress. While she has never worn many of the clothes she has purchased, she is not able to discard them, give them as gifts to others or sell them at flea markets. Instead, the clothes are thrown on top of piles in her bedroom. On the one hand, owning all the clothes, rather than using them, makes her feel good about herself. On the other hand, she is embarrassed about the increasing level of clutter in her home and her rising debts. Anne has completely lost track of what clothes she owns.

Buying-shopping disorder is commonly comorbid with other mental disorders such as anxiety, depressive, eating, hoarding, gambling or substance use disorders [7-11]. With respect to object attachment, the comorbidity with hoarding disorder – as described in the second case example - is of particular relevance. Object attachment has been proposed to play an important role in the development and maintenance of hoarding disorder [12-15]. In treatment seeking samples, at least one third of patients with BSD experience difficulties discarding purchased items, even though they do not use them, resulting in cluttered homes [7,8,16,17]. Patients with BSD with comorbid hoarding disorder compared to those without hoarding symptoms suffer from a higher BSD severity [7,17]. Möllenkamp et al. [17] investigated 60 outpatients with BSD and comorbid hoarding disorder (BSDHD) with 35 outpatients with BSD only and 48 individuals with hoarding disorder only. The BSDHD group reported more severe buying-shopping problems than the BSD only group. Of interest, no group differences were found with regard to the acquisition of free things, difficulty discarding or the accumulation of clutter [for details see [17].

Buying-shopping disorder is considered a behavioral addiction due to neurocognitive similarities with substance-related disorders and gambling disorder [4,11,18]. While recent research has stressed the role of attentional bias, cue reactivity, craving responses, impaired decision-making or diminished inhibitory control in BSD [19-22], only a few studies have explicitly considered other underlying cognitive-affective mechanisms, such as object attachment. According to Kellett and Holden [23], object attachment can be defined as an "affect-laden possession-specific bond between a person and an object or objects" (p. 120). Given the relative lack of empirical data regarding object attachment in BSD, we will rely on patients' reports and studies concerning aspects assumed to be related to object attachment in individuals with BSD such as erroneous beliefs about possessions, the tendency to anthropomorphize objects, materialistic values endorsement, identity problems and personal deficits.

2. Erroneous beliefs about possessions

According to the cognitive-affective model of Kyrios et al. [15,24], erroneous beliefs about and emotional attachment to possessions are implicated in BSD. An examination of affective and cognitive factors in 75 individuals with BSD and 85 control participants revealed that the erroneous belief that buying will compensate for depression and poor self-esteem, erroneous beliefs about the uniqueness of desired objects, fears about lost opportunities regarding the purchase of specific consumer goods, indecisiveness, and maladaptive attachment to and security gained from purchased objects were predictive of higher BSD severity [24]. In contrast to social psychological frameworks of BSD [25], Kyrios and colleagues suggested that such cognitions come in the form of specific beliefs about objects, rather

than as a general endorsement of materialistic values [24]. The authors concluded that the dysfunctional purchasing of products can be viewed as a way of compensating for perceived personal weaknesses and poor self-esteem [24,26].

3. The tendency to anthropomorphize possessions

The tendency to attribute human-like qualities to non-human possessions has been considered a possible mechanism contributing to strong object attachment, difficulty discarding items and build-up of clutter in hoarding disorder [27-29]. Little is known about the role of anthropomorphism in BSD. However, two recent studies examined anthropomorphism in relation to the broader construct 'excessive acquisition', which refers to excessive buying and excessive acquisition of free things [16]. Norberg and colleagues [27] investigated the influence of an anxious attachment style on excessive buying and excessive acquisition of free things through distress intolerance and tendencies to anthropomorphize comforting objects. The sample included 361 volunteers with subclinical to clinical acquisition problems (including both excessive buying and excessive acquisition of free things) and a high level of other hoarding disorder symptoms as measured with the three subscales 'excessive acquisition', 'difficulty discarding' and 'clutter' of the Saving Inventory-Revised (SI-R) [30,31]. The two subscales 'CAS-Buy' and 'CAS-Free' of the Compulsive Acquisition Scale [32] were used to measure excessive buying and excessive acquisition of free things. Serial multiple mediation analyses were performed, e.g. with anxious attachment as predictor, distress intolerance and anthropomorphism as mediators, and excessive buying (CAS-Buy) or excessive acquisition of free things (CAS-Free) as dependent variable. Norberg and colleagues found support for a double-mediation model, whereas distress intolerance was a stronger mediator than anthropomorphism for excessive buying, but not for the excessive acquisition of free things [27].

In another study, Norberg et al. [33] examined whether a person's acquiring status (excessive acquiring only vs. excessive acquiring and difficulty discarding things) interacts with a priming manipulation when participants are asked to choose between a comfort item (chamomile tea box) and a human-like object (person-shaped tea holder) from a mock store. The main hypothesis was that when participants with excessive acquisition only are primed to feel unsupported that those individuals would favor more often a comfort item than those primed to feel supported, as they were expected to engage in escapism (i.e. choosing an item to relieve distress) [33]. Participants with both excessive acquiring and difficulty discarding were expected to choose a human-like object for symbolic self-completion regardless of priming condition [33]. The sample consisted of 57 individuals with self-reported excessive acquiring only and 118 individuals with both self-reported excessive acquiring and difficulty discarding. The groups were built upon their scores on the SI-R subscales 'excessive acquisition' and

'difficulty discarding' [31]. After recalling a situation in which they felt either supported or not supported by a significant other, participants were shown two objects from a mock store related to either self-completion (human-like object; person-shaped tea holder) or escapism (comfort item; chamomile tea box) in a random order. They were then asked to answer an anthropomorphism and a comfort rating for each item. In the next step, they had to choose one item and to rate how attached they felt to the chosen object. Contrary to the main hypothesis, a logistic regression analysis (adjusted for age) did not reveal an interaction between manipulation prime and acquiring status [33], but the authors found some main effects. Participants who were primed to feel unsupported compared to those who were primed to feel supported exhibited a higher tendency to acquire a comfort item instead of a human-like item. Analyses of covariance (adjusted for age) showed that individuals with excessive acquiring only compared to those with acquiring and difficulty discarding problems were less likely to desire the human-like item [33]. Unfortunately, the study did not include a specific measure for BSD. Considering that the seven items of the 'excessive acquisition' SI-R subscale target both excessive buying and excessive acquisition of free things (e.g., 'How much control do you have over your urges to acquire possessions?' / 'How strong is your urge to buy or acquire free things for which you have no immediate use?'), the findings are not specific to BSD.

4. Possessions as identity substitutes

In search for an underlying psychological mechanism that makes people vulnerable for both BSD and hoarding disorder, 'identity-seeking' has been considered an important factor [15,25,34]. Claes and colleagues [34] investigated the association between identity confusion, BSD and hoarding in a Flemish community sample (*n* = 254). Confirming their hypotheses, they found positive associations between identity confusion and BSD and hoarding, indicating that individuals with identity problems are more prone to the acquisition of material goods. The association between identity confusion and BSD was fully mediated by materialism [34], i.e. "the importance a consumer attaches to worldly possessions" [35](p. 291). These findings of Claes et al. [34] were consistent with social psychological theories of BSD, in which BSD is driven jointly by materialistic value endorsement and self-discrepancies [25,26]. In a second study, Claes and colleagues [36] investigated the association between identity clusters and BSD in 41 patients with BSD compared to a control group. Again, identity confusion was linked to higher symptom severity of BSD and related psychopathology [36].

Kyrios and colleagues [15,26] suggest that identity issues in BSD come in the form of 'self-ambivalence' which is defined as dichotomous perceptions of self as worthy and unworthy [37]. In a study of 127 undergraduate female students, Frost et al. [15] found that self-ambivalence and attachment uncertainty were associated with BSD severity, with self-ambivalence accounting for significant

variance even after controlling for depression and indecisiveness. Together, such findings are in line with the assumption that dysfunctional, excessive purchasing may be used to regulate mood and identity problems in patients with BSD [26].

5. Possessions reflecting appearance and status

In one of the very first studies concerning the phenomenology of BSD, Scherhorn et al. [38] conducted in-depth interviews with 21 women and 5 men who defined themselves as addictive buyers. The findings indicated that women with addictive buying favored emotional and symbolic personal possessions (e.g., clothing, shoes, jewelry, cosmetic), while men with addictive buying were more likely to excessively purchase functional and leisure goods (e.g., electronics, sports equipment) [38]. Also, Christenson et al. [1] found that products related to physical appearance or attractiveness were the most frequently purchased items during a BSD episode in a predominantly female sample (22 women, 2 men). Dittmar and colleagues [39] investigated the choice for consumer goods in impulse purchases among 20 female and 20 male mature students. Again, women tended to impulsively purchase symbolic and self-expressive goods linked to appearance and emotional aspects; whereas men favored instrumental and leisure items reflecting independence and activity [39].

According to reports of patients with BSD who excessively spend money for appearance- and status-related products, they expect that this will help them to mask perceived personal faults and to feel admired and loved by other people. BSD can therefore also be seen as an attempt to satisfy narcissistic needs. This view is by no means new. It has been much earlier elaborated by other authors [1,38,39]. Several research papers provided empirical support for the proposed link between narcissism and BSD [40-42]. For example, higher levels of narcissism were positively related to more symptoms of BSD in undergraduate students [40], and materialism (and also low impulse control) mediated this relationship [40]. Alternatively, narcissism can be seen as an outcome of self-discrepancies [43] such as those experienced by individuals high in self-ambivalence [44] and indicative of higher levels of self-processing, adding further evidence of BSD as compensation for perceived personal deficits.

6. Conclusions

A range of studies have shown the importance of buying cognitions on the severity of BSD. Furthermore, studies have consistently pointed to the importance of perceived identity issues and personal deficits as drivers for excessive buying and attachment to objects, although the specific nature of such self-processes needs further investigation. It is acknowledged across studies that buying and shopping can serve as a regulatory mechanism for personal uncertainties and related mood problems. However, it is possible that individuals with BSD who experience extreme difficulties

discarding purchased items are also prone to anthropomorphize such items to an extent that is similar to anthropomorphism in hoarding disorder.

Future studies on object attachment in relation to BSD should make a clear distinction between individuals with BSD only and those with BSD and comorbid hoarding of purchased objects to examine possible different pathway to BSD. This seems important given that patients with BSD with comorbid hoarding disorder compared to those without hoarding symptoms show more severe buying-shopping problems and are less likely to respond to BSD treatment [7,17,45], calling perhaps for a subtyping treatment approach [4]. The DSM-5 hoarding disorder diagnosis currently has a specifier for excessive acquisition which includes excessive buying [49]. Almost all patients with hoarding disorder display at least moderate levels of excessive acquisition (i.e. buying and/or free acquisition) [for review see 50]. On the one hand, it appears that the underlying etiology for poorly controlled purchasing, excessive acquisition of free things and difficulty discarding may be the same in some individuals (e.g., erroneous beliefs about possessions, identity problems, attachment to objects). On the other hand, we have seen many patients with excessive buying problems in the absence of inability to discard (see case example 1). At least half of treatment-seeking patients with BSD do not hoard [7,8,16,17]. Regardless of whether BSD is associated with difficulty discarding or not, it shares phenomenological and neurocognitive key features with substance-related disorders and gambling disorder (e.g., cue-reactivity and craving; for review see 18, 21) and is driven by the interplay between materialistic values and narcissisistic needs, in addition to erroneous beliefs about possessions and identity problems [34; 40-42]. Therefore BSD should be considered as a separate mental condition (rather than a specifier) that can co-occur in the context of hoarding disorder [4].

In our opinion, the existing literature supports the notion that the risk for BSD increases if buying and shopping activities are enriched by identity-seeking motives, specific buying cognitions, narcissistic needs and emotional values, with some question about the relative importance or focus of generally endorsed materialistic values. Future research is now required to address the questions (1) why persons with a predisposition to addiction develop BSD instead of another additive disorder, (2) if individuals with BSD and comorbid hoarding disorder differ in object attachment when compared to individuals with BSD who have no discarding problems, and (3) how interventions focusing on exaggerated buying-related cognitions, emotional attachment to products, identity issues and self-processing may be integrated into existing treatment approaches for BSD [46-48]. Moreover, studies addressing the cognitive and emotional processes related to product preferences in clinical samples (e.g., appearance-related, signaling status, human-like, comforting, branded, discounted, etc.) will

improve our understanding of BSD. In this respect, clinical research on BSD may profit from collaboration with social psychological and neuroeconomic research.

Conflict of interest statement

The authors declare no conflicts of interest relation to contents of this paper.

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Papers of particular interest, published within the period of review, have been highlighted as:

● of special interest

●● of outstanding interest

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