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Guidelines on the Treatment of Shopping Disorder

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Abstract: *Introduction:* (Online-)Shopping disorder can be understood as a specific internet use disorder or the virtual equivalent of offline compulsive buying-shopping disorder. This article summarizes treatment recommendations for shopping disorder in accordance with the German Guidelines for the Diagnosis and Treatment of Internet Use Disorders. *Methods:* The recommendations are based on a preregistered systematic literature review (Müller et al., 2023). In addition, findings of previous systematic reviews were considered. *Results:* None of the studies explicitly addressed online shopping. The results of four controlled psychotherapy trials indicate that cognitive behavioral therapy reduces compulsive buying-shopping. Three placebo-controlled trials utilizing selective serotonin reuptake inhibitors or topiramate demonstrated no superiority of the drug over placebo. The studies were limited by methodological weaknesses and high risk of reporting bias. *Conclusions:* Cognitive behavioral therapy is considered beneficial and should be offered to individuals with shopping disorder. There is a need for high-quality research with more emphasis on online shopping, mechanisms of change, and the combination of face-to-face and computer-based interventions (e.g., cue exposure training, cognitive bias modification). More research into the neurobiology of shopping disorder is essential to further develop pharmacological treatment approaches.

Keywords: shopping disorder, compulsive buying-shopping disorder, treatment, cognitive behavioral therapy, medication

Leitlinien zur Behandlung der Shoppingstörung

Zusammenfassung: *Einleitung:* Mit der rasanten Zunahme des Onlinemarktes ist ein Wandel der Kaufgewohnheiten mit einer Verschiebung vom traditionellen Offline- zum Onlineshopping verbunden. Wenn Onlineshopping entgleist und die Kriterien eines abhängigen Verhaltens erfüllt, spricht man von einer (Online-)Shoppingstörung, die als spezifische Internetnutzungsstörung oder als virtuelle Form der traditionellen, im stationären Handel verorteten zwanghaften Kauf-Shoppingstörung verstanden werden kann. Dieser Beitrag bezieht sich auf die AWMF-S1-Leitlinie zur Diagnostik und Therapie von Internetnutzungsstörungen und fasst die Behandlungsempfehlungen für die Shoppingstörung zusammen. *Methoden:* Die Empfehlungen beruhen auf einem präregistrierten systematischen Review (Müller et al., 2023). Die Literaturrecherche für dieses Review konzentrierte sich auf die Datenbanken PubMed, Scopus, Web of Science und PsycInfo und erfolgte in Übereinstimmung mit dem PRISMA 2020 Statement. Eingeschlossen wurden Behandlungsstudien, die zwischen Januar 2000 und Dezember 2022 veröffentlicht worden sind. Zudem wurden die Ergebnisse früherer systematischer Übersichtsarbeiten berücksichtigt. *Ergebnisse:* Keine der eingeschlossenen Behandlungsstudien adressierte explizit Online-Shopping. Die Ergebnisse von vier randomisierten kontrollierten Psychotherapiestudien zeigten, dass kognitive Verhaltenstherapie eine wirksame Intervention zur Verringerung der Symptome einer zwanghaften Kauf-Shoppingstörung darstellt. Drei placebokontrollierte Medikamentenstudien mit selektiven Serotonin-Wiederaufnahmehemmern oder Topiramat ergaben keine Überlegenheit des Medikaments gegenüber Placebo. Alle Studien wiesen methodische Mängel auf (z. B. kleine Stich-

proben, keine Verlaufsmessungen, kurze Follow-ups, Kontrollgruppen-Designs der Psychotherapiestudien). Prädiktoren für das Behandlungsergebnis wurden kaum und Mechanismen der Veränderung gar nicht untersucht. Die Risk-of-Bias Bewertung ergab bei den meisten Studien ein hohes Risiko von Berichtsverzerrungen. *Schlussfolgerungen:* Personen mit Shoppingstörung sollte eine kognitive Verhaltenstherapie angeboten werden. Angesichts der geringen Anzahl kontrollierter Behandlungsstudien, deren methodischer Mängel und der Tatsache, dass keine Studie zwischen Offline- und Online-Shopping differenzierte, besteht ein eindeutiger Bedarf an qualitativ hochwertiger Therapieforschung. Diese sollte Ähnlichkeiten und Unterschiede von Offline- und Onlineshopping berücksichtigen, Mechanismen der Veränderung adressieren und die Wirksamkeit sogenannter „blended“ Psychotherapie im Sinne der Kombination von „Face-to-face“-Psychotherapie und computerbasierten Interventionen (z.B. Cue Exposure Training, Cognitive Bias Modification) systematisch untersuchen. Im Hinblick auf die Weiterentwicklung pharmakologischer Behandlungsansätze bedarf es weiterer Forschung zur Neurobiologie der Shoppingstörung.

Schlüsselwörter: Shoppingstörung, zwanghafte Kaufstörung, Behandlung, kognitive Verhaltenstherapie, Medikamente

This article summarizes the recommendations for the treatment of *online shopping disorder* in accordance with the German *Guidelines for the Diagnosis and Treatment of Internet Use Disorders* (AWMF, 2025). After a brief introduction to shopping disorder, we provide information on controlled treatment studies for shopping disorder from which the guidelines were derived.

Introduction

Online shopping disorder represents a potential specific internet use disorder that can be understood as the virtual equivalent of traditional shopping disorder (Baggio et al., 2022; Fineberg et al., 2022; Müller et al., 2022; Sherer & Levounis, 2022). In the present article, we use the terms *shopping disorder, predominantly online (ShD-on)*, and *shopping disorder, predominantly offline (ShD-off)*, in line with the terminology proposed by experts in the field of behavioral addiction (Rumpf et al., 2021) and the German *Guidelines for Diagnosis and Treatment of Internet Use Disorders* (AWMF, 2025).

Typical features of ShD-on include reduced control over the use of shopping portals, which is associated with time-consuming browsing and research behavior as well as excessive consumption of goods on the internet (Fineberg et al., 2022; Müller et al., 2022; Müller, Laskowski, Wegmann et al., 2021; Rose & Dhandayudham, 2014). For individuals with ShD-on, online shopping becomes priority in their lives, conflicting with everyday obligations and leisure activities, resulting in clinically significant distress and harmful negative consequences (e.g., debt, family conflicts) and impairments in important areas of functioning (e.g., education, occupation) (Fineberg et al., 2022; Müller et al., 2022; Müller, Laskowski, Wegman et al., 2021; Rose & Dhandayudham, 2014; Williams, 2012). Regardless of the negative consequences and despite insight into the inappropriateness of the behavior, affected per-

sons are not able to permanently normalize the consumption of consumer items (Black, 2022; Müller, Laskowski, Trotzke et al., 2021).

Online shopping is considerably more anonymous, convenient, faster, simultaneous and independent of physical, environmental and time resources than offline shopping (Flayelle et al., 2023; Kukar-Kinney et al., 2009; Mason et al., 2022; Rose & Dhandayudham, 2014). Consequently, online shopping (e.g., via smartphone) can encroach upon other daily responsibilities and leisure activities to a greater extent than offline shopping (e.g., shopping while at work, when meeting with other individuals, independent of store opening hours). The interplay of e-commerce marketing (e.g., buy-now-pay-later option, social media influencing, personalized advertising), certain individual predispositions (e.g., high material value orientation, self-insecurity, depressiveness, impulsivity) and specific internet usage expectancies (e.g., regarding anonymity, product range, immediate gratification) contributes to the development of addictive usage of shopping applications (Brand et al., 2022; Dittmar et al., 2007; Kukar-Kinney et al., 2009; Trotzke et al. 2015).

Case studies indicate that individuals with shopping disorder do not typically engage in exclusive offline or exclusive online research and purchasing activities. During the course of the disorder, alterations in preferences may occur (Benson, 2013; Meyer et al., 2019; Otero-López, 2022). Some affected individuals increasingly conduct online research and make purchases via the internet when in-person purchases are no longer feasible due to financial constraints, store opening times, working hours or travels. Conversely, an increase in “window shopping” in brick-and-mortar stores may occur when access to shopping websites is restricted or when the objective is to reduce online shopping. The alternation or coexistence of online and offline shopping practices presents a challenge in accurately determining the prevalence of ShD-on.

A meta-analysis of data from 49 estimates across 16 countries indicated a pooled prevalence of 4.9 % for shop-

ping disorder in the adult population, without differentiating between offline and online shopping (Maraz et al., 2016). In a clinical sample of patients seeking psychotherapy for shopping disorder ($n=122$), 33.6 % reported engaging in excessive online shopping (Müller et al., 2019). In that sample, symptoms of ShD-on exhibited a negative correlation with age (Müller et al., 2019). Noteworthy, in a representative Swiss study comprising 1,012 participants, risky (but not addicted) online shopping was related to younger age (Augsburger et al., 2020). In a sample of the Polish community ($N=1000$), a high frequency of online shopping was found to be related to a high susceptibility to shopping disorder in individuals who reported positive attitudes towards online shopping (Adamczyk, 2021). This relationship was stronger for females than for males (Adamczyk, 2021). The available literature on gender distribution in shopping disorder is inconclusive. However, the majority of studies indicate that women are more likely than men to score above the respective questionnaire threshold for shopping disorder (Laskowski et al., 2024; Maraz et al., 2016; Müller et al., 2015; Otero-López & Villardefrancos, 2014).

The classification of shopping disorder in general, and ShD-on in particular, remains a topic of contention. In the ICD-11, shopping disorder (not differentiated between offline and online) is referred to as *compulsive buying-shopping disorder* and listed as an example of *other specific impulse control disorders* (WHO, 2023). Nevertheless, the phenomenology (e.g., recurrent loss of control over behavior, continuation or escalation of behavior despite adverse consequences), underlying psychological processes (e.g., disadvantageous decision-making, reduced inhibitory control), and neurobiological correlates of cue reactivity and craving suggest parallels with behavioral addiction (Brand et al., 2022; Müller, Laskowski, Wegman et al., 2021; Trotzke et al., 2021). It thus appears reasonable to categorize shopping disorder as a behavioral addiction and, in accordance with the ICD-11 classification of gambling disorder and gaming disorder, to distinguish between a *predominantly online* and a *predominantly offline* subtype (Laskowski et al., 2023; Müller, Laskowski, Trotzke et al., 2021).

Method

The recommendations for the treatment of ShD-on are based on a recent systematic literature review (registration CRD42021257379 in PROSPERO), which focused on the PubMed, Scopus, Web of Science and PsycInfo databases (Müller et al., 2023). The literature search was conducted in accordance with the PRISMA 2020 statement (Page et

al., 2021) and included original treatment studies published between January 2000 and December 2022 (last search conducted on December 15th, 2022). A comprehensive description of the findings, including quality of reporting assessment using the CONSORT guideline for randomized controlled trials (Schulz et al., 2010), can be found elsewhere (Müller et al., 2023). Furthermore, the findings of previous systematic reviews on the treatment of shopping disorder were considered (Goslar et al., 2020; Hague et al., 2016; Leite et al., 2014; Soares et al., 2016; Vasiliu, 2022).

For further information on the methodology employed in the development of the treatment guidelines for internet use disorders, we refer to Chapter 4 of the *Guidelines for Diagnosis and Treatment of Internet Use Disorders* (AWMF, 2025).

Results

To date, treatment studies have included patients with shopping disorder in general, without differentiating between an online and an offline subtype. To the best of our knowledge, no treatment study has specifically addressed ShD-on.

The review of the literature (Müller et al., 2023) revealed four randomized controlled psychotherapy studies (Benson et al., 2014; Mitchell et al., 2006; Müller et al., 2013; Müller et al., 2008). Three studies were conducted to evaluate the efficacy of cognitive behavioral therapy (CBT) when delivered in a group setting, with a waiting list control group serving as the comparison (Benson et al., 2014; Mitchell et al., 2006; Müller et al., 2008). In a fourth study, the efficacy of group CBT was compared with that of a waiting list control group and with guided self-help (Müller et al., 2013). The primary outcome in all studies was a significant improvement in shopping disorder symptoms as measured with the Compulsive Buying Scale (CBS) (Faber & O'Guinn, 1992) and/or the Yale-Brown Obsessive Compulsive Scale-shopping version (YBOCS-SV) (Monahan et al., 1996). The findings indicate that CBT is an efficacious intervention for the reduction of shopping disorder symptoms. To the best of our knowledge, there are no controlled treatment studies that have employed insight-oriented, psychodynamic, systemic, mindfulness-based, or other psychotherapeutic interventions for shopping disorder (Goslar et al., 2020; Hague et al., 2016; Leite et al., 2014; Müller et al., 2023; Vasiliu, 2022).

It is important to consider the various limitations of the CBT studies when formulating recommendations for treatment. These include the relatively small sample sizes, the use of a waiting list control group design (as opposed to

a comparison with an alternative active treatment), the poor quality of reporting, and other methodological weaknesses (Müller et al., 2023). Nevertheless, CBT is considered beneficial, and therefore, patients with shopping disorder, including those with a predominance of online shopping, should be offered CBT (see Table 1).

The literature reviews revealed three placebo-controlled medication studies (Black et al., 2000; Nicoli de Mattos et al., 2020; Ninan et al., 2000). Two additional drug studies started with an open-label phase, which was subsequently followed by a double-blind discontinuation phase (Koran et al., 2007; Koran et al., 2003). None of the placebo-controlled medication trials with SSRIs (Black et al., 2000; Koran et al., 2007; Ninan et al., 2000) or topiramate (Nicoli de Mattos et al., 2020) indicated evidence of superiority of the drug over placebo (Bullock & Koran, 2003; Nicoli de Mattos et al., 2020; Soares et al., 2016). Furthermore, the medication and placebo groups were relatively small, and the extent of systematic reporting bias of the results according to CONSORT criteria was considerable, with the exception of the study published by (Nicoli de Mattos et al., 2020). Therefore, it is not possible to make a recommendation for the use of a standalone drug-based treatment for shopping disorder in general, or for ShD-on in particular (see Table 1). Nevertheless, in cases where there are comorbid mental health conditions (e.g., depression), the use of an antidepressant such as a SSRI as an adjunctive treatment may be considered. It is noteworthy that a number of case reports have indicated a reduction in shopping disorder symptoms in patients undergoing treatment with opioid antagonists (Piquet-Pessoa & Fontenelle, 2016; Soares et al., 2016). To date, no controlled treatment studies with opioid antagonists have been conducted with patients diagnosed with shopping disorder. As a result, no recommendations regarding the use of opioid antagonists in this patient population can currently be made.

Discussion

Given the lack of studies that pertain specifically to ShD-on, the recommendations for treatment presented in Table 1 are based on the clinical experience of the authors of this chapter and on the outcomes of treatment studies that do not differentiate between offline and online shopping. The most recent systematic review was updated with literature search, conducted in mid-December 2022 (Müller et al., 2023). To the best of our knowledge, no additional controlled treatment studies have been published since then. In light of the limited number of controlled studies and their inherent methodological deficiencies, it becomes evident that the treatment of shopping disorder remains a largely understudied topic. This may be connected to the pending recognition of shopping disorder as a stand-alone mental disorder and the absence of clear consensus regarding the most appropriate classification.

In light of the growing significance of online shopping, it is important that research addresses the question of whether the treatment of ShD-on differs from that of traditional shopping disorder, and, if so, in what specific ways. Considering the potential for online and offline shopping to co-occur in individuals with shopping disorder, it may be challenging to justify conducting pure therapy studies exclusively on patients with ShD-on or solely on patients with traditional shopping disorder. Nevertheless, it is essential to thoroughly explore the preferred shopping environment. Furthermore, it is crucial to consider the specific characteristics of brick-and-mortar retail as compared to e-commerce that may contribute to the development and maintenance of shopping disorder in the context of treatment studies. In conclusion, there is a clear requirement for rigorous, high-quality research in the field of shopping disorder.

It is nevertheless important to acknowledge the pioneering nature of the psychotherapy and medication tri-

Table 1. Recommendations for the treatment of shopping disorder

Recommendations for the treatment of online shopping disorder (ShD-on)		
	Evidence level	Degree of recommendation
Recommendation 1: Cognitive-behavioral therapy (CBT) should be offered.	–	GCP
Recommendation 2: Pharmacological treatment alone ought not to be considered.	–	GCP
Recommendations for the treatment of shopping disorder, not differentiated between online shopping disorder (ShD-on) and offline shopping disorder (ShD-off)		
	Evidence level	Degree of recommendation
Recommendation 1a: Cognitive-behavioral therapy (CBT) should be offered.	Ia	A
Recommendation 2a: Pharmacological treatment alone ought not to be considered.	IIb	B

Notes. GCP = good clinical practice according to clinical consensus, A = very strong recommendation, B = strong recommendation.

als that were conducted more than 20 years ago, despite the limitations of these studies (Black et al., 2000; Mitchell et al., 2006; Ninan et al., 2000). It is also important to note that the specifics of the internet (e.g., e-commerce platform design features, social commerce) and findings from cognitive and neurobiological research on psychological processes (Brand, 2022; Flayelle et al., 2023) suggest that a subtype approach, which would include predominantly offline or predominantly online shopping disorder, as well as blended therapy approaches, could be beneficial. For individuals with ShD-on, e-health interventions have the potential to supplement face-to-face CBT, and to disrupt and regulate the seemingly habitual online shopping behaviors. Cue exposure training and cognitive or emotional bias modification interventions have been helpful for other addictive behaviors (Bach & Kiefer, 2023; Chia & Zhang, 2020; Park et al., 2015; Wu et al., 2022). It is therefore plausible that they could be employed to enhance self-control in individuals with shopping disorder. Moreover, mindfulness programs may be a viable option for the treatment of shopping disorder, given that they have demonstrated efficacy in reducing craving and mental distress in other behavioral addictions (Brandtner et al., 2022) and have shown promising outcomes in the treatment of problematic internet usage (Fendel et al., 2024).

The studies available at present almost all refer to pre-post treatment comparisons of shopping symptoms. With respect to psychotherapy, it is of crucial importance to examine the mechanisms involved in symptom change as well as the adherence to treatment, the role of specific and non-specific therapeutic factors, the influence of mental comorbidities and personality aspects, and potential adverse effects of treatment. With respect to the advancement of pharmacological treatment studies, further insights into the neurobiology of shopping disorder would be advantageous.

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