The Prevalence and Psychological Relation of Problem Shopping: Data from a Large-Scale Sample from Turkey

Başak Ünübol (basakctf@hotmail.com)
University of Health Sciences, Erenköy Mental Health and Neurological Diseases Research and Training Hospital
Barış Önen Ünsalver
Üsküdar University
Hüseyin Ünübol
Üsküdar University
Gökben Hızlı Sayar
Üsküdar University

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Abstract

Background: The purpose of the present study was to comprehensively examine the measurement aspects, the prevalence, and the psychological correlates of problem shopping among a large-scale national sample of Turkish adults.

Result: Participants (N = 24380, 50% men, M age = 31.79 years, age range = 18 to 81 years) completed a questionnaire that comprised the Shopping Addiction Risk Questionnaire, the Brief Symptom Inventory, the Positive and Negative Affect Schedule, and the Experiences in Close Relationships-Revised. Results showed that 1.8% of the participants had probable shopping addiction. Being female, being younger, psychiatric distress, positive affect, negative affect, anxious attachment, and avoidant attachment were positive correlates of problem shopping.

Conclusion: The results of this large sample size study suggest that shopping addiction is not a rare condition in Turkey. Further research is needed to understand different motives that underlie the problematic shopping behavior in the young and female population in comparison to older and male populations. Preventive programs or any interventions for people with SA needs to address regulation difficulties and development of healthy strategies to cope with psychiatric distress.

Introduction

Shopping is part of everyday life but it may become problematic when it goes beyond meeting the shelter, nutrition, education, health, and recreational needs of the person and starts to limit the person's personal and social life and cause the person to be financially and morally negatively affected. In the globalized and hyperconnected world of the 21st century, excessive shopping has become a problem for all societies. What distinguishes shopping addiction (SA) phenomena from ordinary consumers, collectors and hoarders is that they focus mainly on the purchasing process and the emotions this process evokes, not specifically on the product purchased. For this reason, they often do not use the products they buy or discard them [1].

SA is not included as a distinct disorder in the current psychiatric diagnostic systems yet. Problematic shopping behavior (PSB) was defined as “oniomania " by both Bleuler and Kraepelin in the early twentieth century [2]. However, it has been unclear whether this is a problem with impulse control, or a variant of obsessive-compulsive disorder or an addictive disorder. In accordance with that various different names such as “oniomania,” “compulsive shopping,” “compulsive consumption,” “impulsive buying,” “compulsive buying," “compulsive spending” and “problematic shopping behavior” have been used to address the same clinical picture. In recent years, growing literature and clinical observations support the definition of PSB as a behavioral addiction like internet addiction, exercise addiction, and pathological gambling [3–6]. According to Lejoyeux and Weinstein, who define shopping addiction, purchasing behavior comes in an uncontrollable and repetitive form, the person spends most of his time shopping or imagining the shopping act; he always buys more than he had planned and continues his shopping behavior despite the negative consequences of shopping [7].

Griffith's described components of addiction as salience, mood modification, tolerance, withdrawal symptoms, conflict and relapse [8]. PSB fits into this model. Therefore, "shopping addiction (SA)" will be used throughout the text to refer to any type of PSB. There is a constant preoccupation with shopping in SA cases. Although they do not always purchase a new product, they devote a significant amount of time scrolling through online shopping sites or reading comments about certain products and they may neglect their work. In the early stages, subjects with SA feel positive emotions when they shop [9] . Over time, shopping becomes a solution to get away from negative emotions [10]. Despite the feelings of guilt and regret after the shopping act, the person has difficulty controlling the shopping bouts as the problem progresses. As a result of the unstoppable shopping activity, family conflicts and relationship problems with the spouse arise, job performance may decrease, and increasing debts and related legal problems may even come down to illegal acts to overcome financial problems.

Quality of life may decrease and secondary psychiatric problems may occur. People with SA are generally aware of their problems [2]. Most are worried about their debt associated with shopping problems [11]. Nevertheless, they rarely seek help. They prefer to be alone while shopping because the presence of someone who doesn't share the same positive feelings as themselves can be shame inducing.

Cross-sectional studies indicate that SA is chronic, although fluctuations are observed in its severity and intensity [11, 12]. In some cases of SA, the problem is continuous and does not improve for more than a month, while in the other part, the disease progresses periodically. Some cases encounter these periods every hour, while others occur once a month.

Measurement of problem shopping

Different scales for assessing problematic shopping behavior have been developed since the late 1980s. Some of these scales approach the problem either from the compulsive buying or impulse-control paradigm perspective [13–15] and do not assess components of behavioral addiction [8]. Although Bergen Shopping Scale [3] is among the widely used scales, it was not used in our study because it is not valid and reliable for Turkish culture.

Prevalence of problem shopping

The inconsistency with the definition, naming and measurement of the problematic behavior has yielded in different results in epidemiologic studies. The rate of the prevalence of SA in epidemiological studies was found to be between 1.1-20 % [9, 16–19]). In a meta-analysis of 40 epidemiological studies on the shopping problem, the point prevalence was found to be 5% [20]. So far as we know, there is no population based study on the prevalence of SA from Turkey.

Correlates of problem shopping

In clinical and field studies, it has been reported that 80-95% of the SA cases are women [16, 21]. However, in some studies there was no effect of gender on SA [19, 22].

SA cases tend to be younger [16, 18, 19, 21, 23]. Lejoyeux et al.(2007) found that fewer women (66%) with SA were married than the control group (85%)[24]. Most studies have failed to show any effects of sociodemographic variables like education, relationship status, income or employment on SA [16, 25].

SA is rarely seen as an isolated problem. In cases with shopping addiction, first and second axis disorders accompany the picture with a rate of 90% [19]. Mood disorders, anxiety disorders, eating disorders, hoarding disorder, impulse control disorder, gambling addiction, and substance use disorders are the most common psychiatric problems accompanying shopping addiction [26]. In the literature, it has been reported that a mood disorder accompanies SA in % 21-100 [19, 27, 28]. In McElroy et al.'s (1994) study, patients stated that when they were depressed, only shopping made them feel good [29]. In a study from Brazil, Mattos et al. (2016) reported that among the 171 patients with compulsive buying 164 had at least one psychiatric comorbidity, with anxiety and mood disorders being the most frequent [30]. The decline in cognitive functions in depression and the need for rewarding behavior may facilitate shopping behaviour. "Retail therapy" stands out as a popular method for dealing with negative emotions in society.

People who have difficulty in regulating intense emotions whether negative or positive tend to act impulsively which puts them under risk for addictive disorders [31]. Shopping has a mood modifying effect as suggested in the multicomponent model of addiction [8]. It has been reported that people with SA might experience both positive and negative emotions before the purchase [32, 33]. Act of shopping or being occupied with shopping might have a temporary effective regulatory function.

Attachment style and shopping addiction relationships have been studied rarely. Main idea of attachment theory as proposed by Bowlby is that every human being has an innate need for psychological security that is provided by the care and protection of their attachment figure. People seek out proximity of their attachment figures, particularly when they are distressed. If a person is securely attached the attachment figure is perceived as loving, approving and a close person that can be trusted at any time. In contrast, the attachment figure is perceived as cold, distant and unreliable when a person has avoidant attachment. Therefore, they withdraw themselves when they are distressed in order not to be disappointed. Anxious attachment is characterized by a perception of the attachment figure as an inconsistent and confusing person who might be warm, loving and dependable at certain times and cold, distant and undependable at other times. Thus, they seek constant encouragement from their significant others. Attachment insecurity is related to increased psychiatric distress and difficulties in affective regulation [34]. Anxiously attached individuals might use inanimate objects as a means to feel socially connected and secure [35]. This is similar to what Winnicott called a "transitional object" such as a toy or a blanket which the child attaches to during the separation stage from the primary attachment figure. Transitional object attachment helps the child feel safe and secure when the primary caregivers are unavailable [36].

Negative affect states related to insecure attachment might trigger an increased attachment to and the need to possess inanimate objects. Shopping is also at times a social activity for individuals where they interact with sales persons. Therefore, especially those with anxious attachment might be expected to turn to shopping when they feel the need to connect while avoidantly attached individuals might refrain from shopping to avoid any social proximity.

The present study

This survey study was conducted to examine a large-scale representative sample from different parts of Turkey utilizing a new instrument that was aimed to reflect the six components of behavioral addiction criteria to assess shopping addiction. More specifically, it psychometrically defines the employment of IRT, a cut-off point for the population of interest, to accurately assess disordered buying prevalence. Furthermore, it employs LCA analysis to define the optimum number of disordered buying profiles, as well as the nature of their differences for that specific population. The study describes the intensity of the associations between shopping addiction and some psychological phenomenologies. Regarding the literature research on the correlates of shopping addiction, in the present study it was hypothesized that psychiatric distress, negative affect, and attachment styles would all be positively associated with shopping addiction.

Methods

Participants and procedure

Initially, 24494 adults from Turkish community filled out paper-and-pencil questionnaires. Inclusion criteria for participation was being over 18 years of age, and not having a mental illness that prevents the individual from completing the questionnaires. The study was carried out in 79 different cities all over Turkey by 125 clinical psychologists via taking participants' informed consent for participating in the study voluntarily and anonymously. The sample was planned based on the NUTS (nomenclature of territorial units for statistics) classification. NUTS is a hierarchical system for dividing up the economic territory of the European Union. The individuals residing in 26 NUTS3 regions of Turkey participated in the study. The final sample consisted of 24380 participants (12249 men and 12131 women; M_{age} = 31.79 years, SD_{age} = 10.86; range = 18 to 81 years) who did not have unreliable responses and/or too much missing data. This article is part of a larger survey study on different behavioral addictions' prevalence in Turkey.

Measures

Shopping Addiction Risk Questionnaire (SHARQ): The unidimensional SHARQ (see Appendix) was developed to assess shopping addiction (e.g., "*If I stop shopping, it can be triggered again and I can continue to pretend like I never left*.") The scale consists of six items that assess components (Griffiths,

2005) of six addiction-like symptoms (salience, withdrawal, mood modification, conflict, tolerance, relapse) [8]. Items (0 = *never,* 10 *= always*) were averaged to create an index of shopping addiction (Cronbach's α = .90).

Brief Symptom Inventory (BSI): The Turkish form [37] of the 53-item BSI [38] assess five symptoms: anxiety (e.g., "*Suddenly scared for no reason.*"), depression (e.g., "*Feeling lonely.*"), negative self concept (e.g., "*Feelings of worthlessness.*"), somatization (e.g., "*Trouble getting your breath.*"), and hostility (e.g., "*Having urges to beat, injure, or harm someone.*"). Items (1 = *almost never*, 5 = *almost always)* were averaged to create a general index of global severity to assess general level of psychiatric distress (α = .95) .

Positive and Negative Affect Schedule (PANAS): The Turkish form [39] of the 20-item PANAS [40] was used to assess positive (e.g., "*enthusiastic*", "*determined*") and negative affect (e.g., "*alert*", "*ashamed*") at a given point in time. Items (1 = *very slightly*, 5 = *extremely*) were averaged to create indices of positive affect (α = .85) and negative affect (α = .83).

Experiences in Close Relationships-Revised (ECR-R): The Turkish form [41] of 36-item ECR-R [42] was used to assess anxious (e.g., "*When my partner is out of sight, I worry that he or she might become interested in someone else.*") and avoidant attachment (e.g., "*I am nervous when partners get too close to me.*"). Items (1 = *strongly disagree*, 7 = *strongly agree*) were averaged to create indices of anxious (α = .83) and avoidant attachment (α = .85).

Statistical analysis

Exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and Item Response Theory Graded Models (IRTGM) were used to examine the structure validity and cut-off score of the SHARQ. Root mean square residuals (RMSEA), standardized root mean square residuals (SRMR), comparative fit index (CFI), and goodness of fit index (GFI) were checked to determine goodness of fit in CFA. According to Hu and Bentler (1999), RMSEA and SRMR lower than .05 indicate good fit and RMSEA and SRMR lower than .08 suggest adequate fit; CFI and GFI higher than .95 is good and CFI and GFI higher than .90 is acceptable [43]. Frequency and descriptive statistics were used to calculate ratios, mean scores, and standard deviations of the study variables. Pearson correlation analysis was used to examine correlation coefficients among study variables. To examine predictors of shopping addiction, hierarchical regression analysis was applied. Statistical analyses were utilized running SPSS 23.0, AMOS 23.0, and Mplus 7.0 software.

Results

Scale development and prevalence of shopping addiction

Kaiser-Meyer-Olkin measure and Barlett's test of sphericity (.87; $p < .001$) in EFA suggested a one-factor solution. Principal component analysis indicated all items had high loads (communalities ranging between .57 and .75), explaining 67.29% of the total variance. EFA results were evaluated performing CFA. Goodness of fit indices (χ^2 = 2422.50, df = 6, $p < .001$, RMSEA = .13 CI 90% [.12, .13], SRMR = .03, CFI = .97, GFI = .97) stipulated mostly good fit to the data. According to the standardized regression weight (ranging between .65 and .86), all items had a significant role in the scale. As a result of the analyses, it was found that those scored 55 and higher on the SHARQ could be categorized as addicted to shopping. Accordingly, %1.8 of the participants were at very high risk for having a shopping addiction.

Correlation and hierarchical regression analyses

Table 1 illustrates mean scores, standard deviations, and correlation coefficients of the study variables. Shopping addiction was positively correlated with psychiatric distress (r = .21, $p < .001$), positive affect (r = .08, $p < .001$), negative affect (r = .16, $p < .001$), avoidant attachment (r = .07, $p < .001$), and anxious attachment (r = .18, $p < .001$).

Table 2 contains the results of hierarchical regression analysis. Gender and age comprised the Block 1. In Block 2, psychiatric distress, positive and negative affect, and adult attachment styles were included into the equation. Being women (β = .13, $p < .001$), being younger (β = -.11, $p < .001$), psychiatric distress (β = .14, $p < .001$), positive affect (β = .13, $p < .001$), negative affect (β = .02, $p < .01$), avoidant attachment (β = .04, $p < .01$) and anxious attachment (β = .09, $p < .001$) were positively associated with shopping addiction. The regression model predicted 10% of the variance in shopping addiction ($F_{7,24220}$ = 374.82, $p < .001$).

Table 1.

Mean scores, standard deviations, and Pearson's correlation coefficients of the study variables

	1	2	3	4	5	6
1. Problem shopping	-					
1. Psychiatric distress	.22*	-				
1. Positive affect	.08*	-.15*	-			
1. Negative affect	.16*	.58*	-.10*	-		
1. Avoidant attachment	.07*	.24*	-.28*	.23*	-	
1. Anxious attachment	.18*	.44*	-.10*	.37*	.21*	-
M	16.00	98.20	30.42	19.46	60.27	60.21
SD	14.43	29.04	7.97	6.83	19.23	18.36
*$p < .001$						

Table 2.

Hierarchical regression analysis predicting problem shopping

Model	B	SE	β	*t*	ΔR^2
Block 1 ($R^2_{Adjusted}$ = .04; $F_{(2,24225)}$ = 543.96; p < .001)					.04
Gender[a]	3.84	.18	.13	21.12**	
Age	-.20	.01	-.15	-24.28**	
Block 2 ($R^2_{Adjusted}$ = .10; $F_{(7,24220)}$ = 374.82; p < .001)					.06
Gender[a]	3.71	.18	.13	20.90**	
Age	-.14	.01	-.11	-17.13**	
Psychiatric distress	.07	.00	.14	17.93**	
Positive affect	.23	.01	.13	19.94**	
Negative affect	.05	.02	.02	3.16*	
Avoidant attachment	.47	.09	.04	5.31*	
Anxious attachment	1.29	.10	.09	13.12**	

Note: B = unstandardized regression coefficient; SE = Standard error; β = standardized regression coefficient; a) Men = 1, Women = 2; *p < .01, **p < .001

Discussion

In the present study, we tested the psychometric properties of a newly developed short-scale for assessing shopping addiction, and examined the prevalence and psychological predictors of shopping addiction in relation to sociodemographic factors in a large-scale Turkish sample (N = 24,380). Being female, being younger, psychiatric distress, positive affect, negative affect, anxious attachment and avoidant attachment were positively associated with shopping addiction.

Measurement of problem shopping

We preferred a new questionnaire '*Shopping Addiction Risk Questionnaire (SHARQ)'* for this study. Impulsivity is frequent among people with SA which necessitates the use of a very brief scale. Therefore, a questionnaire with concise, clear and well targeted questions that was based on components of behavioral addiction and that could be answered by most of the subjects was fit for the scale of the current study.

Prevalence of problem shopping

1.8% of the participants in our survey study were found to be at very high risk for having shopping addiction as assessed by SHARQ. The point-prevalence for SA in the meta-analysis study by Maraz et al. (2016) was 5% [21]. Though our finding is lower than this, it can still be said that SA is not rare and an issue of concern in Turkey. Turkey has a population of more than 83 million people (Turkish Institution of Statistics, https://data.tuik.gov.tr/Bulten/Index?p=Istatistiklerle-Kadin-2020-37221) which makes it probable that at least 1.5 million people in Turkey might be suffering from SA.

Predictors of problem shopping

In our study, being a woman was positively associated with shopping addiction. This is in accordance with most of the previous studies on problematic shopping disorder [18, 20] . There is a gender stereotype where shopping is regarded as a gender appropriate behavior for women which might make it easier for women to normalize their shopping behaviors. The main target population of consumer marketing is women. The message that is conveyed to women is that they can find whatever is lacking in their different identities such as female identity, mother identity, wife identity or working woman identity by means of shopping. Dittmar states that buying behavior is driven by materialistic values and discrepancies in identity, so she suggests that buying can be conceptualized as an identity seeking behavior [18]. Either through normalization or fulfillment of identity needs, women are under increased risk for the development of SA in comparison to men.

Being younger was positively associated with shopping addiction. The younger the person the more he needs to be seen, accepted and appreciated especially by his peers and also by the rest of the community. Shopping might serve these needs well. What is more, the free trade globalised economy and the online hyperconnected state of the world that young people are born into makes it easier for them to explore and be easily tempted to shop for various products from any part of the globe. Accessibility of the product smooths the path to purchasing it. Young people may be more impulsive and have more difficulties in emotional regulation in comparison to older people which are both risk factors for behavioral addiction development [20, 31]. In many studies, it has been reported that SA starts at the end of adolescence and becomes a significant problem in the 30s [7, 11, 16, 44]. This might suggest that the period in which the individual reaches economic independence and starts earning his own money is compatible with the development of tolerance to shopping behavior.

In our study psychiatric distress was positively related to SA. Some people might turn into shopping for relieving their psychiatric distress [32]. As has been reported SA has a high comorbidity with other psychiatric disorders [16, 19].

In a study by Müller et al. (2012), 25 participants with compulsive buying (CB) were monitored with a handheld computer where they noted their affective states using the PANAS scale in relation to the CB episodes [33]. It was reported that negative affect increased before a CB episode and decreased after the purchase, whereas positive affect decreased before CB episode, but did not increase after the CB episode. Bellini et al. (2017) reported that among 316 mall customers higher positive affect before entering the

shopping mall was related to more impulse buying [45]. Three clusters of buyers were identified in a sample of 419 compulsive buyers depending on the affective states prior to buying episodes [46]. “Escape seekers” buy in response to negative emotions, “excitement seekers” buy to get stimulated when they feel bored and the act of buying in “low affect management buyers” is not affected by any type of emotions prominently. In our study, both negative and positive affect were positively correlated with SA. Though we did not specifically ask for the affective state of the subjects prior to their shopping experiences, our findings can still support the relation between positive and negative affective states and the tendency for problematic shopping behavior.

Anxious attachment is associated with distress intolerance and poor impulse control, both of which are related to uncontrolled buying. Excessive buying in anxious attachment may be a maladaptive coping strategy for emotion dysregulation [47]. In contrast, avoidantly attached individuals dismiss their needs for social connection and they do not attach to objects for support [35, 47]. In Keefer et al.’s study (2012), they hypothesized that increased attachment anxiety would mediate the effect of the prime on object attachment, but attachment avoidance would not. The results of their main study revealed that attachment avoidance also predicted object attachment. However, the effect of priming on an object was mediated only by attachment anxiety, not attachment avoidance. In our study, both anxious and avoidant attachment were positively associated with SA, but further mediation analysis was not performed like Keefer et al.’s study. We did not specifically ask about online shopping behaviour in our study which is a solitary and somewhat discrete way of shopping. So it could be said that online shopping might form a safe ground especially for individuals with avoidant attachment patterns. Attachment styles and object attachment have been studied mainly in patients with hoarding disorder but not in people with problematic shopping behavior [48] which makes the current study unique. Hoarding disorder is different from shopping addiction because even though the stuff might have been gathered as a result of shopping addiction the main issue is that of being unable to discard possessions. Furthermore, hoarded materials might not have been acquired as a result of shopping. Norberg et al. (2018) compared objects with hoarding disorder and compulsive buying in terms of object attachment and anthropomorphic object choice, but not in terms of personal attachment styles [47]. In their study, those objects who were primed to recall an instance with a significant other where they felt unsupported were more likely to acquire comfort items. This finding supports both the stress relieving role of shopping and also fulfillment of attachment needs of proximity by purchasing a comfort item. Avoidantly attached individuals would be expected to turn to comfort item shopping when they are distressed which might explain the association of avoidant attachment and SA in our study. In future studies differences in shopping tendencies of anxious and avoidant people can be explored.

Limitations and conclusion

The cross-sectional nature of the present study limits the interpretation of the findings despite the large sample size. Further longitudinal studies will help to understand changes in psychiatric symptoms relating to SA over time. Self-report questionnaires were used in the study which might have led to recall

and social desirability biases. A recent study suggested that online and in-store shopping addiction are not completely two different entities and they do overlap [49]. However, people with either type of SA show somewhat different patterns of shopping that might interfere with the sociodemographic features of SA. Online-shopping behavior was not questioned specifically in the study which might have affected some of the socio-demographic findings.

This study was done before the COVID-19 pandemic. Panic bulk buying [50] and compulsive buying behaviour has increased during the pandemic [51]. New studies can shed light on whether this compulsory increase in e-commerce or panic buying has changed the prevalence of shopping addiction.

Even though there are some limitations, this is the first study that empirically explores the psychological predictors of shopping addiction with the largest sample until now from different areas of Turkey.

Conclusion

The results of this large sample size study suggest that shopping addiction is not a rare condition in people living in Turkey. In accordance with previous studies from other countries being female and being younger seemed to increase the risk of shopping addiction. Symptoms of psychiatric distress, negative and positive affect were positively correlated with shopping addiction in our sample as has been shown in previous studies on problematic shopping addiction.

Our findings suggest that further research is needed to understand different motives that underlie the problematic shopping behavior in the young and female population in comparison to older and male populations. Any preventive measure for SA needs to target relatively young and female populations primarily. These preventive programs or any interventions for people with SA needs to address regulation difficulties and development of healthy strategies to cope with psychiatric distress. Regarding our findings on the attachment style and SA, it can be said that these people might benefit from Interpersonal psychotherapy [52].

Declarations

Ethics approval and consent to participate

Ethics committee approval and study permission for the study were obtained from Üsküdar University clinical research ethics committee. Our study was prepared in accordance with the ethical principles stated in the Declaration of Helsinki.

Informed consent have been obtained from participants.

Availability of data and materials

The datasets used and/or analysed during the current study available from the corresponding author on reasonable request.

Competing interests

There is no conflict of interest

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Authors' contributions

Design: HÜ, GHS, BÜ, BÖÜ, Data collection and analysis: HÜ, GHS, Manuscript preparation, editing and review: BÜ, BÖÜ, HÜ, GHS

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Consent for publication

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