Ek 1. Yale-Brown Obsesyon Kompulsiyon Ölçeği-Türkçe Öz Bildirim Formu

Şu andaki rahatsızlık düzeyinizi saptamak amacıyla oluşturulmuş olan aşağıdaki liste üzerinde **SON BİR HAFTANIZI** düşünerek zihninize takılan **takıntılar (obsesyon)** ve tekrar tekrar yapmak zorunda hissettiğiniz **zorlantılarınızı (Kompulsiyon)** puanlamanız istenmektedir. Puanlama yaparken her sorunun altındaki açıklamaları okuyarak size uygun gelen puanı takıntılar ve zorlantılar için **AYRI AYRI ALTLARINDA YER ALAN BOŞLUĞA** yazınız.

Takıntılar (Obsesyon): Tekrar tekrar zihninize giren istenmeyen düşünceler, hayaller veya istekler. Siz istemeden gelirler ve sıklıkla sıkıntıya neden olurlar. Örneğin: bulaşma oldu mu? ... Kir var mı? Kapıyı açık bıraktım mı? …. Zarar verebilir miyim? Farkında olmadan …. yapmış olabilir miyim? Hata yaptım mı? Eksiklik var mı? .... istedim mi? ..... istiyor muyum?

Zorlantılar (Kompulsiyon): Aşırı veya mantıksız bulmanıza rağmen yapmaktan kendinizi alamadığınız davranışlar. El yıkama, silme, kapıyı kontrol etme, musluğu kontrol, dönüp tekrar bakma, başkasına sorma, aynı düşünce veya istek akla gelmeden hareketi tekrar yapma veya belli sayıda bazı hareketleri tekrarlama veya zihinsel işlemler sayı sayma, dua etme, tersini söyleme, rahatlatıcı kelimeler tekrarlama, konuyu zihinde tekrar canlandırarak inceleme, konu üzerinde düşünerek.

Geçen Hafta Boyunca		**Takıntı (Obsesyon)**	**Zorlantı (Kompulsiyon)**
1) Zaman-- Ne kadar zaman bunlarla meşgul oldunuz (Gün/ saat)?	**0-Hiç** **1-Hafif,** (günde toplam 1 saatten az) veya kısa sürelerle gelip gidiyor (günde 8 kereden az) **2-Orta,** (günde toplam 1-3 saat) veya sık sık gelen ama kısa süren (günde 8 kereden fazla ama günün büyük kısmı bunlar yok) **3-Ağır,** (günde toplam 3-8 saat) veya çok sık bir şekilde kısa süreli olarak gelip geçen (günde 8 kereden fazla ve günün büyük bölümünü bunlar işgal ediyor) **4-Çok ağır,** (günde 8 saatten fazla) veya neredeyse sürekli bir şekilde gelip giden (sayılamayacak kadar çok ve arada çok nadiren 1 saat ara veren)		
Geçen Hafta Boyunca		**Takıntı (Obsesyon)**	**Zorlantı (Kompulsiyon)**
2) Engel-- Sosyal yaşantınızı ve işinizi ne kadar engellediğini derecelendirin.	**0-Hiç** **1-Hafif,** Sosyal hayatı veya işi çok hafif olarak etkileyen ancak performansın tümü göz önüne alındığında pek bir değişikliğe neden olmayan bir etki **2-Orta,** Sosyal hayatı veya iş hayatını etkilediği kesin olarak gözlenen ancak halen üstesinden gelinebilir bir durumda olan bir etki **3-Ağır,** Sosyal hayatı veya iş verimini belirgin olarak olumsuz etkileyen bir durum **4-Çok ağır,** iş görmez bir durum		
3) Rahatsızlık-- Sizde ne kadar sıkıntıya neden oldu?	**0-Hiç** **1-Hafif,** *Obsesyonlar*: Ara sıra ve çok rahatsız edici değil. *Kompulsiyonlar:* engellendiğinde çok az sıkıntı duyuyorum; kompulsif davranışı gerçekleştirirken çok az sıkıntı duyuyorum. **2-Orta,** *Obsesyonlar* sık olarak çok rahatsızlık veriyor ancak halen baş edebiliyorum. *Kompulsiyonlar*: engellendiğinde sıkıntım artabilir ancak baş edebiliyorum; kompulsiyonu yaparken sıkıntı duyuyorum ancak baş edebiliyorum. **3-Ağır,** *Obsesyonlar* çok sık olarak çok rahatsızlık veriyor. *Kompulsiyonlar:* Eğer kompulsiyonu yapmazsam veya engellenirse belirgin bir şekilde çok sıkıntı duyuyorum; kompulsiyonu yaparken belirgin şekilde çok sıkıntı duyuyorum. **4-Çok ağır,** *Obsesyonlar* neredeyse sürekli ve beni iş göremez duruma getiren bir rahatsızlık veriyor.		

	Kompulsiyonlarımı yapmazsam veya engellenirse çok şiddetli ve beni iş göremez duruma getiren bir sıkıntı duyuyorum; kompulsiyonu yaparken çok şiddetli ve beni iş göremez duruma getiren bir sıkıntı duyuyorum.		
Geçen Hafta Boyunca		**Takıntı (Obsesyon)**	**Zorlantı (Kompulsiyon)**
4) Direnme-- Direnebilmek için ne kadar çaba sarf ediyor-sunuz?	**0-** Her zaman direniyorum veya zaten o kadar az ki direnmeye gereksinim duymuyorum. **1-**Çoğu zaman direnmeye çalışıyorum. **2-** Direnmek için bir miktar çabalıyorum. **3-** Hepsine teslim olmuş durumdayım; direnemiyo-rum ancak bu durumdan hoşnut değilim. **4-**Hiç direnmiyorum. Tam ve gönüllü olarak boyun eğmiş durumdayım.		
5) Kontrol-- Ne kadar kontrol edebildiğinizi derecelendirin -- durdurabilme veya başka yöne çevirebilme düzeyiniz nedir?	**0-** Tam olarak kontrol edebiliyorum. **1**-Büyük oranda kontrol edebiliyorum *Obsesyonu* genellikle bir miktar çaba ve dikkatle durdurabiliyorum veya unutabiliyorum. *Kompulsif* davranışı yapmak için baskı hissetmeme rağmen genellikle istemli olarak kontrol edebiliyorum. **2-**Orta derecede kontrol edebiliyorum. *Obsesyonu* bazen durdurabiliyorum veya unutabiliyorum. *Kompulsif* hareketleri yapmak için kuvvetli bir baskı var ancak güçlükle kontrol edebiliyorum. **3-**Az miktarda kontrol edebiliyorum. *Obsesyonu* durdurmada nadiren başarılı olabiliyorum veya sadece zorlukla dikkatimi başka şeylere yöneltebiliyorum. *Kompulsiyonları* durdurmak için çok fazla çaba harcamam gerekiyor, engelleyemiyorum sadece zorlukla yapmayı geciktirebiliyorum. **4-**Kontrol edemiyorum. *Obsesyon* irademin dışında. Çok nadiren dikkatimi başka bir şeye verebildiğim oluyor. *Kompulsiyonları* sürekli yapıyorum yapmamak be-nim gücümü aşar, ancak anlık olarak geciktirebiliyo-rum.		

JOURNAL OF CLINICAL PSYCHOLOGY RESEARCH (JCPR)
https://doi.org/10.5455/kpd.26024438m000047

| Extended Abstract |
Yale-Brown Obsession Compulsion Scale-Turkish Self-Report Form: A study of reliability and validity

Filiz Koçoğlu[1], Başak Bahtiyar[2]

Keywords
Yale-Brown Obsession Compulsion Scale, self-report, reliability, validity

Abstract
Yale-Brown Obsession Compulsion Scale (YBOCS) is one of the most commonly used instruments to assess the severity of symptoms related to Obsessive Compulsive Disorder (OCD) in clinical settings and in empirical studies. A self-report version of this scale has been developed, since semi-structured interview version has some limitations such as the need for administration or time-consuming applications. The aim of the present study was to examine the validity and reliability properties of Turkish version of YBOCS–Self-Report both in clinical and nonclinical samples. Current study was carried out with 267 adult participants (117 patients diagnosed with OCD and 150 healthy controls) between the ages of 18 and 58 (M = 28.33, SD = 7.57). Participants were asked to fill out demographic information form and YBOCS–Self-Report. In addition, YBOCS-Clinician Administered version was applied to some of the participants (n = 56) via semi structured interview. The results of the explanatory factor analysis revealed that YBOCS–Self-Report had one factor structure indicating the severity of OCD symptoms. The internal consistency of the scale was found to be very good in clinical, nonclinical and overall sample. In addition, the self-report version was highly correlated with clinician administered version; and acceptable validity was achieved in differentiating participants diagnosed with OCD from healthy controls. These findings revealed that the Turkish version of YBOCS–Self-Report is a valid and reliable instrument to assess the severity of OCD related symptoms both in clinical and nonclinical samples. The self-report version, which is more practical in application and scoring, has good psychometric properties as well as clinician administered version.

Obsessive Compulsive Disorder (OCD) is a common psychological problem that leads to significant impairments in daily functioning (Subramaniam et al., 2012). Considering the difficulty in identifying obsessions and compulsions (Coles et al., 2013), developing reliable and valid instruments to assess the severity and content of OCD symptoms have burgeoned great attention. Yale-Brown Obsession Compulsion Scale (YBOCS) is one of the most commonly used measurement tools to evaluate OCD symptoms both in clinical settings and in empirical studies. Initially, this scale has been developed in a semi-structured interview format administered by a clinician (Goodman et al., 1989a, 1989b). It measures the severity of OCD symptoms with 5 items for obsessions and 5 items for compulsions in which higher scores point to greater severity (Goodman et al., 1989b). The scale has good reliability and validity properties both in OCD patients and nonclinical sample in evaluating the content, severity, and changes of the symptoms during the treatment (Frost et al., 1995; Goodman et al., 1989a, 1989b).

Considering the limitations of the semi-structured version of YBOCS, such that the administration takes time and requires a clinician (Rosenfeld et al., 1992; Steketee et al., 1996), a self-report version has been developed (Baer, 1992). In this version, the structure, the items, and scoring are the same as those in clinician-administered version; the only difference is that the instructions and items are presented in writing (Baer, 1992). The self-report form is more practical in administration; good psychometric properties have been established; also, high correlations between two versions have been obtained (Baer et al., 1993; Federici et al., 2010). Besides, the scores higher than 16 indicate severe impairment that can be used to differentiate clinical samples from healthy controls (Baer et al., 1993; Seol et al., 2013; Steketee et al., 1996).

The Turkish version of the clinical administered form adapted by Tek et al. (1995) has good reliability and validity features in a Turkish sample. On the other hand, the self-report version was translated into Turkish by Türkçapar (2005), but psychometric properties were not examined. Therefore, the current study aimed to investigate the factor structure and psychometric properties of the YBOCS Turkish Self-Report Form both in clinical and nonclinical samples.

METHODS

The sample of the study was composed of both clinical and community samples. The clinical sample consisted of 117 outpatients (67 females and 50 males) diagnosed with OCD recruited from Erenköy Hospital

To cite: Koçoğlu, F., & Bahtiyar, B. (2021). Yale-Brown Obsession Compulsion Scale-Turkish Self-Report Form: A study of reliability and validity. *Journal of Clinical Psychology Research, 5*(3), 229-244.

✉ **Filiz Koçoğlu** · kocoglufiliz@gmail.com | [1]Lecturer, Department of Psychology, Faculty of Letters, Ondokuz Mayıs University, Samsun, Turkey; [2]Asst. Prof., Department of Psychology, Maltepe University, İstanbul, Turkey.
Received *Nov 6, 2020,* ***Revised*** *Feb 4, 2021,* ***Accepted*** *Feb 18, 2021*
Authors' Note: *This study is based on the data of the master's thesis that the first author completed under the supervision of the second author.*

for Mental and Nervous Diseases. The ages of the participants ranged from 18 to 58 (M = 30.15, SD = 8.71), and those who had additional comorbid conditions or neurological problems (e.g., epilepsy or dementia) were excluded from the study. The community sample included 150 healthy controls (88 females and 62 males) who did not report any history of psychological or psychiatric help, clinical diagnosis, or neurological condition. The age was ranged between 18 and 48 (M = 26.85, SD = 6.00). All participants (i.e., both in clinical and nonclinical) were recruited using the convenience sampling method.

The instruments for data collection were demographic information form, Turkish forms of YBOCS Clinician-Administered (Goodman et al., 1989b; Tek et al., 1995), and Self-Report versions (Baer, 1992; Türk-çapar, 2005). YBOCS Clinician-Administered is a semi-structured interview including different OCD symptoms. The scale's total score is calculated with 10 items (5 items for obsessions, 5 items for compulsions), and higher scores indicate an increase in symptom severity (Goodman et al., 1989b). YBOCS Self-Report Form has the same items and scoring with clinician administrated version. The original form has good psychometric properties; the total score ranges from 10 to 40; and those higher than 16 indicate severe impairment (Baer et al., 1993; Federici et al., 2010; Seol et al., 2013; Steketee et al., 1996). The self-report version was translated into Turkish by Türkçapar (2005), the psychometric properties were examined in the present study.

Firstly, the approvals of the Ethical Committee in Maltepe University and the Ethical Committee of Erenköy Hospital for Mental and Nervous Diseases were obtained. Then, all participants were informed about the aim of the study and confidentiality through informed consent. Self-report questionnaires were filled by all participants; semi-structured interview was administered by a clinician to only 56 of the clinical participants. In order to examine the factor structure of the YBOCS Self-Report, explanatory factor analysis was performed; and Cronbach's alpha coefficients were calculated for internal reliability. Then discriminant validity was examined through the independent samples t-test analyses to compare the mean scores obtained by the clinical group and those taken from the control group. Besides, logistic regression analysis was executed to assess the predictive validity and ROC analysis to test the cutoff score of the scale. Finally, convergent validity of scale was examined by calculating Pearson's correlation coefficients between YBOCS Clinician-Administered and Self-Report versions.

RESULTS

In order to examine the factor structure of the Turkish YBOCS Self-Report Form, Principal Component Analysis using oblimin rotation was performed considering the high correlations between items (coefficients ranged between .51 and .86). The data showed a perfect fit for the analysis with a KMO index of .91 and Barlett's Chi-Square as 3150.17, $p < .001$. The analysis indicated only one-factor solution based on the eigenvalue greater than 1 (valued as 7.50), and scree plot that explained 75.03% of the variance. These findings revealed that the Turkish Form has a one-factor structure along 10 items assessing the severity of OCD symptoms, and those factor loadings were between .75 and .91.

Secondly, the discriminant validity of the scale was investigated by comparing the mean score obtained in the clinical group and those taken from the control group through the independent sample t-test analyses. Before analysis, Levene's test was not significant (p = .47), indicating the homogeneity of variance between the two groups. The results yielded significant difference [$t(265) = -13.25$, $p < .001$]. Accordingly, the severity of OCD symptoms is significantly higher among OCD patients (M = 21.43, SD = 8.47) compared to healthy controls (M = 8.24, SD = 7.75).

Then, the predictive validity of the scale was tested by using binary logistic regression. The results revealed that YBOCS Self-Report significantly predicted OCD, [$\chi^2(1) = 124.38$, $p < .001$, Nagelkerke R^2 = .50]. In other words, the scale had significant effect in identifying individuals with and without OCD (β = .17, $Wald(1) = 72.90$, $p < .001$); also, higher scores pointed OCD patients, (OR = 1.19, 95% CI = 1.144-1.240). The scale classified 73.5% of the OCD patients correctly, 82.7% of healthy controls, and 78.7% of overall participants. Furthermore, 76.1% of OCD patients had scores higher than 16; while, 79.3% of the healthy controls had lower than suggested cutoff. The ROC curve analysis supported that the cutoff point of 16 for the YBOCS Self-Report in the original version is also applicable in the Turkish population (76% sensitivity, 79.3% specificity). Finally, the convergent validity of the scale was provided by a significant correlation between self-report form and clinician-administered interview ($r(56)$ = .94, $p < .001$). Besides, mean score of the self-report version (M = 20.87, SD = 9.38), and those of clinician administration (M = 22.48, SD = 9.11) were very close to each other.

Cronbach's alpha coefficients and item-total correlations of the scale were calculated for OCD patients, healthy controls, and overall sample for reliability analysis. The results yielded perfect consistency for the OCD patients and healthy controls (Cronbach's alphas as .94 in both groups) and all participants (Cronbach's alpha as .96). Item total correlations were also high and similar across both groups and in the total sample (ranged between .71 and .89).

DISCUSSION

The present study investigated the psychometric properties of the YBOCS Turkish Self-Report Version both in a clinical and nonclinical sample. The original

scale was developed by consisting of two subscales, named as Obsessions and Compulsions (Goodman et al., 1989a, 1989b). However, prior research yielded inconsistent findings in terms of construct validity, such as Disturbance and Symptom Severity (Amir et al., 1997); Severity and Resistance/ Control (Deacon & Abramowitz, 2005); also, Obsession, Compulsions and Resistance (Moritz et al., 2002). Therefore, explanatory factor analysis was performed, and a one-factor model for the Turkish form was obtained to assess the severity of OCD symptoms. Despite this factor solution is supported by previous research (e.g., Fals-Stewart, 1992), further examination is needed to validate this structure.

The findings of the comparison of mean comparisons and logistic regression supported the discriminant validity of the scale. In order words, the Turkish self-report version has acceptable sensitivity and specificity in differentiating OCD patients from healthy controls. Besides, the results of the ROC analysis indicated that cutoff score 16 used in both versions (Seol et al., 2013; Wootton et al., 2014) is applicable in the Turkish population. On the other hand, heterogeneity of the OCD symptoms and cultural factors should not be disregarded in evaluating symptom severity and impairment in functioning. Finally, a high correlation between clinician and self-report versions supported the convergent validity of the Turkish form. Similar results have been achieved in previous studies both in a clinical and nonclinical sample (Federici et al., 2010; Steketee et al., 1996). Besides, perfect internal reliability for the scale was attained both in clinical and healthy controls.

The study has some limitations. Firstly, test-retest reliability was not tested in this study. Investigating this property is recommended for validating the ability of the scale to measure the changes in symptoms before and after treatment. The second limitation includes the lack of examination of the scale with other OCD-related measures such as Maudsley Obsession Compulsion Inventory (Hodgson & Rachman, 1997) and Padua Inventory (Burns et al., 1996) that are assumed to be strongly correlated (Seol et al., 2013). Future examinations regarding the scale's validity properties with samples composed from different clinical and demographic characteristics are recommended.

Despite these limitations, the overall findings displayed that YBOCS Turkish Self-Report Form is a valid and reliable instrument as much as those in the semi-structured version to assess symptoms severity. Besides, the self-report version has some practical advantages, such as easier to apply and no need for an administrator. Therefore, future studies to validate its psychometric properties may be helpful since the scale can contribute to OCD literature and clinical studies.

Compliance with Ethical Standards This study was approved by *Maltepe University Ethical Committee* (Trial Number: 2015/12-1, Date: 12.18.2015)

Conflict of Interest The authors declare that they have no conflict of interest.

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